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**Urban energy democracy
contesting the energy system in London and Barcelona**

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Urban Energy Democracy

Contesting the Energy System in London and Barcelona

James Angel

Thesis submitted in accordance with the requirements of
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Abstract

Social movements, trade unions and political parties across the world are increasingly deploying the imaginary of "energy democracy" to advocate for renewable energy transitions that fundamentally reconfigure power relations, governance and decision-making within the sector. This thesis contributes to nascent debates around how energy democracy might be theorised and enacted, taking a specific focus on the democratisation of urban energy networks in two cities: London and Barcelona. The core argument of the thesis is that a distinction between two internally related conceptualisations of energy democracy is theoretically and politically generative. Thus, I explore the differentiated political possibilities opened and closed by an approach to energy democracy that foregrounds the transformation of institutions of energy governance, and an approach that seeks to broaden agency within the energy system. In making the argument, the thesis draws upon, develops and forges new connections between a range of scholarly debates and literatures, including those around energy geographies, post-politics, state theory, and social reproduction. In doing so, a scholar-activist perspective is pursued, with the thesis departing from ethnographic engagements with a range of struggles within which I am embedded as an activist participant to varying degrees, and documenting the myriad complications, frustrations, and causes for hope that ensue.

Acknowledgments

This research project is a collective endeavour, shaped and supported by so many wonderful friends, colleagues and comrades. All that I have to say here has been informed by my experiences within UK activist networks over the past decade, a product of countless relationships, conversations, protests, parties and meetings.

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1. Introduction

1.1 *Sous les pavés, quoi?*

On 12th December 2015, I joined thousands of protesters gathered outside the *Arc de Triomphe* on the final day of the COP21 UN climate change conference in Paris. Previous plans for more confrontational and ambitious direct action seeking to blockade the conference had been shelved at the last minute, given anxieties around a three-month state of emergency called by the French state in the wake of the terrorist attacks of 13th November. Instead, organisers staged a symbolic and theatrical intervention that intended to straddle the carnival and noise of the street party protest with a sombre minute silence “for the victims of climate change, war and terror”.

As I wandered through the crowds amassing down the *Avenue de la Grande Armée*, stretching towards the business district *La Défense*, I found myself mulling over a series of all-too-familiar questions. Questions that have plagued the climate justice movement since its inception. Did we hope to intervene in the outcome of the UN process or to challenge its legitimacy? Were we making demands? If so, what, and of whom? When we declared “It's up to us to keep it in the ground” from a 100-meter-long red banner, who precisely were we attributing responsibility to? Citizens of rich industrialised countries? Nation states? Or a universal common “humanity”? How might this responsibility be met? Changing personal consumption habits? Lobbying decision-makers? Blockading fossil fuel infrastructure? Further symbolic protests? Or something different?

Just short of fifty years previously, the revolutionary moment of May '68 had seen the cobblestones of Paris ripped from the streets. The pavements that once contained the apparent fixity of urban life became barricades raised by militant students, leaving beneath the sand on which the stones had previously been set. “*Sous les pavés, la plage!*” they declared. Beneath the paving stones, the beach; beneath the drudgery of the capitalist city, liberation.

Back to 2015 and the “D12” climate protests, as we assembled makeshift barricades from inflatable plastic “cobblestones” – a ploy to defend the street from police intrusion, and to invoke the revolutionary history of ‘68 – lines of *gendarmes* watched on unperturbed, with the demonstration having been officially authorised the night before. As much as many might have liked to have ripped up the pavements of Paris that day, there was no apparent need to do so. In any case, what might have been unearthed beneath this time seemed unclear.

Within a few hours, news came from within the conference that a long sought-after agreement had been reached. The 196 nations present were to limit global temperature rises to “well below” 2°C above preindustrial levels and to “pursue efforts” to meet a 1.5°C target. Previously, it had looked likely that COP21 would be yet another “no deal”. The prospects of an agreement acknowledging the 1.5°C target touted by most developing nations and the climate justice movement more broadly had seemed slim. A raft of celebratory statements from politicians, journalists and NGOs quickly began to circulate. But the grassroots organisers behind the D12 demonstration insisted that this was nothing other than business as usual.

Indeed, the Paris Agreement appears to be a supreme example of the “post-political” approach to climate change described in recent influential interventions within human geography by Erik Swyngedouw and others – interventions that will be challenged through the course of this thesis, yet which strike me as pertinent here. Responses to climate change, argues Swyngedouw (2010), are characterised by endeavours to engineer consensus across society on the basis of expert knowledge, around the supposedly “natural” laws of the biosphere and the market, foreclosing the emergence of alternative socio-ecological trajectories. The Paris Agreement, at least at face value, is the crowning achievement of climate post-politics to date. This was a spectacle of diplomatic “consensus” of the highest order, engineered by a gaggle of “expert” bureaucrats, scientists and corporate executives, premised upon a series of techno-managerial market solutions, without any enforceable mechanisms to translate abstract targets into material change. While Barack Obama’s veneration of the Paris Agreement as “a turning point for the world” (Obama 2015) typified the reaction of most within

the political classes of the global north, no major industrialised country has since adhered to the pledges made (New York Times 2016).

Yet did the Paris D12 protests offer a fitting response to this post-political malaise? For some, these kind of international mobilisations provide vital moments of antagonism, through which new solidarities are formed, opening up possibilities for further action (Chatterton, Featherstone, and Routledge 2013). This is not necessarily a suggestion I would disagree with. Yet the overwhelming sense I left Paris with was that things had become far too predictable. We assembled, complete with our obligatory samba bands and polar bear costumes. We decried “business as usual”, shouted “system change not climate change!” and made sure our photographs were circulated around the internet. And then we celebrated our day of rebellion in sweaty squat parties lasting long into the night, drunk on cheap French wine. Perhaps the point is not that mainstream climate (post)politics goes uncontested. Rather, could it be that radical slogans, countercultural association, sometimes even militant confrontations with state power, have become part of the script from which the theatre of post-political climate governance is enacted?

The cynicism with which I left the Paris mobilisation was in part a product of my weariness. Four days prior to the signature of the Paris Agreement, a new campaign called Switched On London – an initiative that I had helped to found – had launched publicly, after an exhausting two months of preparation. This had been imagined as an activist initiative in many ways quite different to the D12 protests. Whereas the Paris mobilisation sought to intervene in international negotiating processes, Switched On London was to be an initiative pursuing change in one particular urban context (that of London, UK). And while the protestors assembled on December 12th eschewed specific demands for the more generalised call for “system change”, Switched On London was to articulate a concrete set of proposals for the reconfiguration of energy provision in the British capital. Guiding these proposals was the nascent imaginary of “energy democracy”: a new set of ideas and practices emerging out of the climate justice movement that portend alternative trajectories of emancipatory energy transition in the face of climate change.

The question on my mind in Paris and during the hungover train journey home was whether this new campaign – and the imaginary of “energy democracy” it sought to enact – offered hope for an alternative means of politicising energy and climate change. It is this question of energy democracy – and the political possibilities that this might open – that underpins and inspires the thesis.

1.2 From “Climate X” to energy democracy

I introduce this question from the vantage point of Paris, 2015, in order to continue a conversation. For in *Climate Leviathan*, Geoff Mann and Joel Wainwright's recent attempt "to develop a politics adequate to the current conjuncture" (P.18) of climate change and the imminent transformation of socio-ecological life, the discussion is brought to a close with an illuminating set of reflections on the Paris protests and the future prospects of the climate justice movement (Mann and Wainwright 2018). Mann and Wainwright begin from the premise that responses to climate change hinge upon two crucial questions – will capitalist social relations be perpetuated and will a new form of sovereignty emerge at the planetary scale – and proceed to extol the inadequacies of variegated trajectories that answer either or both of these questions affirmatively. As an alternative, Mann and Wainwright's invest hope in what they term "Climate X", the movement towards a world beyond both capitalism and planetary sovereignty.¹ They conclude:

The planetary crisis is, among other things, a crisis of the imagination, a crisis of ideology, the result of an inability to conceive any alternative to walls, guns, and finance as tools to address the problems that loom on the horizon. Our task is to see the ruins and fragments of our natural-historical moment for what they truly are; not to draw up blueprints of an emancipated world, but to reject Leviathan, Mao, and Behemoth, while affirming other possibilities. What remains? All we have and all we have ever had: X to solve for, a world to win. (P.197)

Climate X, it is suggested, must incorporate a plurality of open-ended diverse futures co-evolving together, rather than a singular political outlook or end goal.

¹ Mann and Wainwright (2018) refer to a future where capitalist social relations are maintained and a new planetary sovereign emerges as “Climate Leviathan”; they refer to a future where a new planetary sovereign emerges and uses its power to dismantle capitalism as “Climate Mao”; they

One way of framing the orientation of this thesis is as an attempt to start-up where Mann and Wainwright leave-off. My interest in the thesis is in thinking through possibilities for Climate X, which is to say directions of travel for a political response to climate change beyond both capitalism and the technocratic architectures of global governance.

Energy democracy, I will argue, represents one set of possibilities in this regard. This is a nascent imaginary that is gaining increasing currency among a range of social movements, trade unions and progressive political parties; a newly developed concept currently being deployed to frame a variety of energy struggles. The term was first coined at a 2012 anti-coal protest camp in the Lausitz, Germany, where those assembled agreed the following:

Energy democracy means that everybody is ensured access to sufficient energy. Energy production must thereby neither pollute the environment nor harm people. More concretely, this means that fossil fuel resources must be left in the ground, the means of production need to be socialised and democratised, and that we must rethink our overall attitude towards energy consumption. (Cited in Angel 2016, 10)

The term has become widely used in climate activist networks across the world, particularly prominent in the USA and Europe (Angel 2016). Energy democracy has also become an influential agenda within the labour movement, owing, in large part, to the activities of Trade Unions for Energy Democracy (TUED), an international trade union federation established in 2012, now comprised of 65 trade union bodies representing workers in 24 countries. TUED define energy democracy as follows:

A trade union approach to energy democracy can be built around three broad and strategic objectives, namely the need to resist the dominant agenda of the large energy corporations and their allies; the need to reclaim to the public sphere parts of the energy economy that have been privatized or marketized; and the need to restructure the global energy system in order to massively scale up renewable and low-carbon energy, aggressively implement energy conservation, ensure job-creation and local wealth creation, and assert community and democratic control over the energy sector. (Sweeney 2012, 31)

Meanwhile, the Centre for Social Inclusion, a US NGO largely focused around tackling racial injustice, has played a key role in pushing ideas of energy

democracy in the US. They write:

Energy democracy means that community residents are innovators, planners, and decision-makers on how to use and create energy that is local and renewable. By making our energy solutions more democratic, we can make places environmentally healthier, reduce mounting energy costs so that families can take better care of their needs, and help stem the tide of climate change.

To create this future today, we need an “all hands on deck” approach and this requires that we recognize that all Americans have a role to play, including people of color. There are no effective national solutions that exclude people of color because a majority of the US population will soon be Latino, Black, Asian/Pacific Islander, and Native American. (Centre for Social Inclusion 2018, n.p.)

Thus, the concept of energy democracy is bringing together a variety of disparate political claims and orientations. While the Lausitz climate camp raises questions of energy consumption, perhaps alluding to a degrowth-inspired agenda, TUED's emphasis on jobs and local wealth creation implies a green Keynesian approach. The Centre for Social Inclusion, meanwhile, explicitly calls for a more localised energy system, and emphasises questions of racial justice as integral. Across such vectors of difference, there remain obvious similarities. Each approach portends an energy system that is: i) more ecologically sustainable; ii) that addresses social justice questions such as energy access and costs; and iii) that offers more democratic control and oversight, whether through notions of "socialisation", "community control" or "localisation".

That said, energy democracy is a new imaginary that might be filled with content in multiple different ways. The aim of this thesis, then, is *to interrogate how energy democracy might be productively conceptualised and enacted*. The goal is not to arrive at a comprehensive vision or blueprint for the democratisation of the energy system. Rather, the thesis seeks to offer a broad direction of travel for theory and praxis around energy democracy as a means of pushing pre-existing conversations around this forward.

It does so by attending to endeavours to craft energy democracy in a specifically urban context, focusing on energy struggles within two cities: London and Barcelona. Cities are increasingly being positioned as at the forefront of low-carbon transition, due to their pivotal role in the emission of greenhouse gasses and, further, their purported potential for forms of “climate experimentation”

deemed less viable at the national or international scale (Bulkeley et al. 2011; Caprotti 2015). Moreover, urban struggles around questions of energy access and ownership are increasingly seen as at the forefront of nascent attempts to enact energy democracy by scholars and activists alike (Becker, Beveridge, and Naumann 2015b; Angel 2016). My focus on *urban* energy democracy is not intended to imply that energy democracy should be conceived as an exclusively urban project. However, through the course of the thesis, I seek to excavate the ways in which the specific spatialities in question help shape the processes under investigation and, therefore, to illuminate the role of the urban in building energy democracy.²

1.3 Foundations

In order to meet the aim of the thesis, as set out above, two connected approaches will be central: scholar-activism on the one hand, and open dialectics on the other. These are introduced briefly below (while explored in greater depth in Chapters 3 and 2 respectively).

Scholar-activism

The thesis emerges out of my own pre-existing political praxis. Since an initial baptism of fire at the "Climate Camp" targeting Kingsnorth coal-fired power station in 2008 (see: Saunders and Price 2009; Schlembach 2011; Saunders, 2012), I have for the subsequent decade been immersed in the UK climate justice movement, incorporating involvement in an array of initiatives and struggles, across grassroots initiatives and NGOs, deploying a range of tactics from direct action to community organising and parliamentary lobbying, participating in both a voluntary and professional capacity.

I first encountered the concept of energy democracy within my activism for Fuel Poverty Action, a grassroots campaign group attempting to link climate change to everyday struggles around rising fuel bills and inadequately heated homes. Through our contacts within German energy activist networks, Fuel

² The question of how "the urban" is conceptualized in the thesis is addressed in Chapter 2, Section 2.5.

Poverty Action were introduced to discourses of energy democracy in 2013 and became increasingly interested in whether these could be helpful in our context. Thus, between 2014 and 2015, I was one of several Fuel Poverty Action activists who collaborated with Platform – a small London-based NGO historically focused on highlighting and resisting the impacts of British oil firms internationally – to organise a series of workshops exploring the idea of energy democracy and what this might mean in the UK context. These brought together activists from grassroots campaigns, NGOs and trade unions working on energy issues, to discuss ideas for what a democratic energy system could look like, and possible strategies to work towards this. I remember these workshops feeling frustratingly vague, lacking in proposals as to how abstract visions might translate into concrete demands and practices. It was at this point that the idea of a research project on energy democracy first entered my head.

Accordingly, the thesis sets out with the intention of developing a form of "scholar-activism" premised upon what Kate Derickson and Paul Routledge (2015) refer to as "resourcing" struggle. Which is to say that as well as seeking to contribute to scholarly debates, a core goal of my doctoral research project has been to provide a range of practical and epistemological resources to the activist initiatives I collaborate with. As I will go on to document, meeting this goal has required a variety of flexible and, at times, frustrating scholar-activist strategies.

At the heart of this has been my ongoing participation within the Switched On London campaign, which I co-founded in October 2015, one month in to the beginning of my research project. This is a campaign coalition backed by a range of UK grassroots groups, NGOs and trade unions, calling on the Greater London Authority (GLA) to establish a new municipal energy utility company as both a vehicle for accelerating renewable energy transition in the British capital and as a democratically controlled alternative to existing private sector energy supply firms, from which households and businesses buy their electricity and gas. My ongoing participation in this campaign has been the basis of an activist ethnography, within which my "fieldwork" has been largely constituted through

reflections upon my political praxis.³

Yet the discussion in the thesis is not based on my experiences in London alone. Rather, the thesis is based upon a comparative study drawing on energy struggles in London and Barcelona. In the latter context, I draw primarily on three distinct yet interconnected initiatives. Firstly, on the basis of a series of semi-structured interviews, I explore another municipal energy initiative named *Barcelona Energia* (Barcelona Energy). Like Switched On London, this seeks to use municipal energy as a vehicle for crafting a clean, fair and democratic energy transition. Yet unlike Switched On London, this is an actually existing policy initiative developed within municipal institutions – institutions that, since May 2015, have been under the minority-rule of a “citizens’ platform” named *Barcelona en Comú* (Barcelona in Common), elected on a platform of enhancing participatory democratic control over urban life. Secondly, I draw upon four months of activist ethnography conducted within social movements called *la Alianza Contra la Pobreza Energética* (APE, translated as the Alliance Against Energy Poverty) and *la Xarxa per la Sobirania Energètica* (XSE, translated as the Energy Sovereignty Network).⁴ APE is a Catalonia-wide initiative founded in Barcelona in early 2014, seeking to contest the increasing inability of many of the city’s residents to secure reliable access to electricity, gas and water. XSE was formed in summer 2013 seeking to unite disparate energy struggles across Catalonia around an agenda for a “new energy model” premised upon the concept of energy sovereignty.

Open dialectics

Inspired by Gill Hart (2017) and her method of “relational comparison”, I approach the diverse experiences of energy struggle in London and Barcelona as

³ As will be discussed further in Chapter 3, Section 3.3, the ethnographic material I draw on pertaining to Switched On London draws primarily on my experiences within the group between October 2015 and December 2017. During this time, Switched On London’s principle focus was on the municipal energy campaign described here – a focus that has since shifted towards a broader vision of socio-ecological transformation in the nascent “London Leap” project, which I am unable to discuss in the thesis (see: Switched On London, 2018).

⁴ The thesis deploys phrases from both Castilian and Catalan Spanish, attempting to retain fidelity to the linguistic choices of my research collaborators in Catalonia.

connected by shared processes, while simultaneously remaining attentive to the ways in which these processes are in part constituted through the situated practices specific to each of these historical geographies. Experiences within London and Barcelona, then, become vantage points through which the making and remaking of processes stretching across space and time can be tracked.

Indeed, the "open, non-teleological conception of dialectics" (Hart 2017, 371) underpinning Hart's method of relational comparison – which I will refer to, in shorthand, as “open dialectics” – provides a guiding theoretical foundation for the thesis more broadly. Following a broader historical materialist tradition, I adopt a relational ontology, according to which all "things" are constituted through dynamic and contested processes (Harvey 1996b; Loftus 2012). Yet the thesis, following Hart, seeks to avoid positing "encompassing" processes common across space and time and, instead, to understand processes as both constitutive of and constituted by the contingent mediations of historical and geographical difference. The result, I hope, is a historical materialist approach that leaves ample room for contingency and agency.

This is an analytical move with important political implications. By excavating the ways in which apparently ossified “things” such as energy systems and states are the product of practices and processes that can be intervened in and reconfigured, open dialectics renders the world as radically open to change. What's more, by understanding situated experiences as always in-relation, this is a theoretical outlook conducive towards the formation of new solidarities and alliances (Hart 2017; Loftus 2019). Accordingly, the approaches of open dialectics and scholar-activism are themselves interrelated. Together, they constitute the foundations out of which my interrogation of energy democracy will be built – a set of foundations that refuses to treat theory and praxis as disconnected.

1.4 Energy democracy in-against-and-beyond the state

From these foundations, the core contribution made by the thesis is an argument around energy democracy, its conceptualisation and enactment. Developing previous scholarly contributions to debates around energy democracy (Becker and Naumann 2017; Burke and Stephens 2018), I will argue that energy

democracy can be approached in two interrelated ways. Firstly, as endeavours to transform the institutions of energy governance such that energy users and workers gain enhanced participatory control. And, secondly, as endeavours to expand agency over the energy system such that those previously rendered as voiceless and invisible on matters of energy claim centrality in this regard.

On the first approach to energy democracy in its more institutional guise, I analyse municipal energy initiatives in London and Barcelona – Switched On London and Barcelona Energia – as endeavours to reconfigure the institutions of energy governance by i) extending the role of the local state in the energy system and ii) seeking to transform or "common" the local state via forms of participatory democracy. On the second approach to energy democracy in its more agentic guise, I explore the ways in which Switched On London and APE, to varying degrees of success, connect questions of energy to everyday life. On this, I explore the consequences for the making and remaking of social reproduction and its associated subjectivities and, in turn, drawing on the political philosophy of Jacques Rancière (2009), the reconfiguration of energy system agency. In exploring these two approaches to energy democracy, I attend to the various ways in which political possibilities are opened and closed.

My argument is that these two differentiated approaches to energy democracy should be understood as deeply connected and internally related. Endeavours to reconfigure institutions of energy governance have implications for energy system agency and vice versa. Accordingly, I will contend that it is generative to approach energy democracy in terms of a fluid movement between these two approaches. To capture this movement, I argue that energy democracy can be conceptualised and enacted as a trajectory of struggle oriented at once in-against-and-beyond the state. Energy democracy, I will suggest, can be approached via a strategy that works *within* state institutions in order to work *against* the relations of domination that constitute the state; a strategy that also refuses to reify the state as the sole terrain of struggle and that, hence, explores forms of political action *beyond* state institutions.

If, then, the thesis is guided by the core question of how energy democracy might productively be conceptualised and enacted, I seek to address this broadly

defined task by answering a series of associated research questions:

- 1. Why and how have endeavours to craft energy democracy via the transformation of institutions of energy governance emerged in London and Barcelona?*
- 2. What is the potential of these endeavours to transform institutions for building energy democracy in London and Barcelona?*
- 3. Why and how have endeavours to craft energy democracy via the expansion of energy agency emerged in London and Barcelona?*
- 4. What is the potential of these endeavours to expand energy agency for building energy democracy in London and Barcelona?*

1.5 Contextualising the study

Before I can proceed to answer these questions in the subsequent chapters, some further contextualisation of the two sites within which my research is situated is necessary. In this section, I address each site in turn, tackling three questions of national context, urban context, and energy system context. I begin in London before turning to Barcelona.

London, UK

From the government of Margaret Thatcher onwards, beginning in 1979, the UK has been a heartland of neoliberal ideology and policy (Harvey 2005). The Keynesian welfare state established by the post-WW2 Labour administration has come under attack from successive governments (both of the centre-right Conservative Party and the centre-left Labour Party) pursuing policies of privatisation, liberalisation, fiscal disinvestment and endeavours to erode the power of organised labour (Hall 1980b; Hall and Jacques 1983; Hall 2005).

Following the financial crisis of 2008, a decade of Labour rule came to an

end, replaced by a coalition government between the Conservatives and the centrist Liberal Democrat Party, committed to a harsh austerity programme (continued in the years of Conservative government that have followed). According to the Institute for Fiscal Studies think-tank, public services expenditure has fallen 10 per cent in real terms between 2010 and 2017, the biggest reduction on record in the UK (Institute for Fiscal Studies 2017). One LSE study's analysis of OECD data shows that average real wages between 2007 and 2015 dropped by over 5 per cent, the sharpest decline in any OECD country besides Greece (Costa and Machin 2017). The result has been widespread immiseration, an increasing reliance on emergency food aid and a spike in mortality rates (Watkins et al. 2017).

While the UK remains under the rule of the Conservative Party, currently in power through an electoral pact with the right-wing Northern Irish Democratic Unionist Party, UK politics have become increasingly contested in more recent years. Firstly, the referendum on Scottish independence from the UK held in September 2014, while ultimately resulting in a 55 per cent majority against independence, threatened a political crisis for the British state, resulting in the devolution of further powers to the Scottish parliament in March 2016 (BBC News 2016b). Second, following the Labour Party's defeat in the May 2015 general election and the subsequent resignation of Ed Miliband as party leader, fringe socialist backbencher Jeremy Corbyn secured a landslide victory in his election to the role of Labour leader (Seymour 2016). Despite sustained attack, at the time of writing Corbyn looks relatively stable in his position, having outperformed gloomy predictions in the 2017 general election, in which the Conservative Party lost their majority due to Labour gains (BBC News 2017b). Finally, UK politics has also been rocked by the June 2016 referendum over membership of the European Union, delivering a 52 per cent majority "leave" vote (BBC News 2016a). The question of "Brexit" and negotiations as to if and how a departure from the EU can be managed has gone on to dominate the political conjuncture up to the time of writing.

Within this broader turbulent political climate, the capital of London plays a specific role. London, in the terminology of Doreen Massey (2007), is a "world

city", an important node in a power-laden web of relations stretching across the globe. Just as London was once the political and financial centre of British colonialism, London's political and financial institutions continue to occupy pivotal roles within global processes of uneven development (Massey 2007). What's more, the political economy of the UK is increasingly oriented around London, issuing in stark regional inequalities. And London itself is the most unequal region of the UK, bringing together the super-rich and extreme deprivation in close proximity. Yet the processes of financialisation, redevelopment and gentrification entrenching inequalities within the city exist in a back-and-forth tension wrought by resistance and refusal. And, on occasion, the city itself has emerged as a site of struggle against domination and exploitation, for instance during the left-wing experimentation within the Greater London Council (GLC) under the leadership of Ken Livingstone in the 1980s, a thorn in the side of the Thatcher government resulting in the GLC's abolition by the Conservative government in 1986 (Massey 2007).

For over 10 years following the GLC's abolition, there was no administrative body responsible for governing Greater London, with most of the GLC's powers devolved to London boroughs. Following a referendum on the establishment of a new London-wide governing body in 1998, the newly established Blair government created the Greater London Authority (GLA) in 2000, made up of an elected Mayor and the "London Assembly" consisting of 25 elected members. The GLA now exists alongside 32 London Borough councils, with the latter responsible for running most local services for instance schools and waste collection. In general, across the UK, local government is relatively disempowered in comparison to most other European countries. From Thatcher onwards, successive national administrations have curtailed the fiscal and policy autonomy of local government, transferring power to central government as well as to private sector contractors (John 2016).

The development of the energy system – both nationally and in London – has co-evolved with and through the political history sketched above. Prior to its nationalisation in the aftermath of World War II, the UK's energy system was largely decentralised, with electricity and gas supplied by a dispersed array of

municipal bodies, private firms and philanthropic actors (Cochrane 1985). The 1947 Electricity Act merged the hundreds of pre-existing electricity companies into 14 (later 15) regional electricity boards, with the British Electricity Authority vested with responsibility for managing the newly established National Grid and all electricity generating assets in England and Wales, tasks undertaken in Scotland by the South of Scotland Electricity Board and the North of Scotland Hydro-Electric Board (Cochrane 1985). The gas industry was then nationalised in 1949, moving towards a centralised system that paralleled that of the newly established nationalised electricity system. British Gas – a nationalised company formed through the merger of regional gas boards in 1972 – was then privatised in 1986 as the Thatcher government's pioneering experiment in so-called "shareholder democracy" (British Gas 2018). Processes of privatisation and liberalisation within the electricity sector then began in 1989, with electricity and gas infrastructure sold off to private firms, and new markets in electricity and gas generation and supply being created (Pearson and Watson 2011).

The emerging model – the so-called "British model" of liberalisation – has now become a gold standard for the European energy market enforced by a series of EU liberalisation directives. This is premised upon the "unbundling" of the sector into legally distinct fields of transmission, distribution, generation and supply (Pearson and Watson 2011). The transmission network, for electricity, is the system of high-voltage wires crossing across the country and, for gas, is the system of high-pressure pipes transporting gas from entry terminals to gas distribution networks, power stations and large industrial users. For Great Britain (not including Northern Ireland, which operates within a single electricity market with the Republic of Ireland), the electricity and gas transmission networks are owned and managed by a private firm called National Grid. These transmission networks connect to a series of regional electricity and gas distribution networks: lower voltage electricity wires and lower pressure pipes that take electricity and gas from the transmission network to users. These are operated as regional monopolies under the ownership and management of a number of different private firms. "Generation" refers to the power stations and other associated assets (wind turbines, solar farms and so-on) through which

electricity is produced. There are competitive markets in electricity and gas generation known as the "wholesale" markets, within which private firms compete to sell electricity and gas to "supply" companies. Energy "supply" operates in separation from the material infrastructure of the energy system through a further competitive market, in which private firms compete to sell electricity and gas to users. Finally, the energy system is regulated by a body independent of government named Ofgem, tasked with overseeing the functioning of the various markets and government schemes within this.

The UK energy system is currently in the midst of a period of transition, largely in response to the imperative of decarbonisation in the face of climate change. Figure 1 below illustrates the changes ensuing within the energy generation mix from 1970 to 2017, with notable trends including a gradual decline in fossil fuel usage including a significant decrease in coal reliance, alongside an increasing share for renewables. Renewables occupied 30 per cent of the UK's electricity generating mix in 2017, up 5 per cent from 25 per cent in 2016 (DUKES 2018). This growth in renewables is happening in spite of recent cuts to renewables subsidies, which have seen all subsidies for onshore wind banned (Independent 2017) and the feed-in-tariff subsidy for small-scale renewables, which previously underpinned increasing take-up for household solar and community renewable generation projects, significantly reduced (The Guardian 2016).

It is worth stressing, at this point, that the nascent energy transition underway is reconfiguring the spatial and material characteristics of the energy system in fundamental ways. While fossil energy must be combusted in large centralised power stations, renewables can be generated on a much smaller scale, for instance at the household or neighbourhood scale. There is no inevitability here, with large-scale centralised renewable generation very much possible too. Yet the potential for more distributed forms of generation requires the reconfiguration of existing electricity grids, which have previously been built to facilitate the "downwards" flow of electricity from large, usually rural, power plants to the household, rather than allowing for electricity generated in households to flow "upwards" into the grid (Seyfang, Jin Park, and Smith 2013).

Furthermore, the move from fossil fuels to renewables is understood to be a move towards more "intermittent" forms of energy, contingent upon factors such as the time of day and the weather. An additional challenge is that the decarbonisation of heat is likely to require using less gas and more electricity as a primary source of heat, placing an additional load on electricity grids (Quiggin and Wakefield 2015). Two responses to these converging challenges for electricity grids are being touted as central. Firstly, digitalisation through new smart metering and grid technologies, which would render electricity networks as carriers of data as well as electrons (Siano 2014). And, secondly, storage, which would allow surplus energy generated at particularly sunny or windy times, for instance, to be stored for usage at a later point (Winfield, Shokrzadeh, and Jones 2018).

UK energy use by source

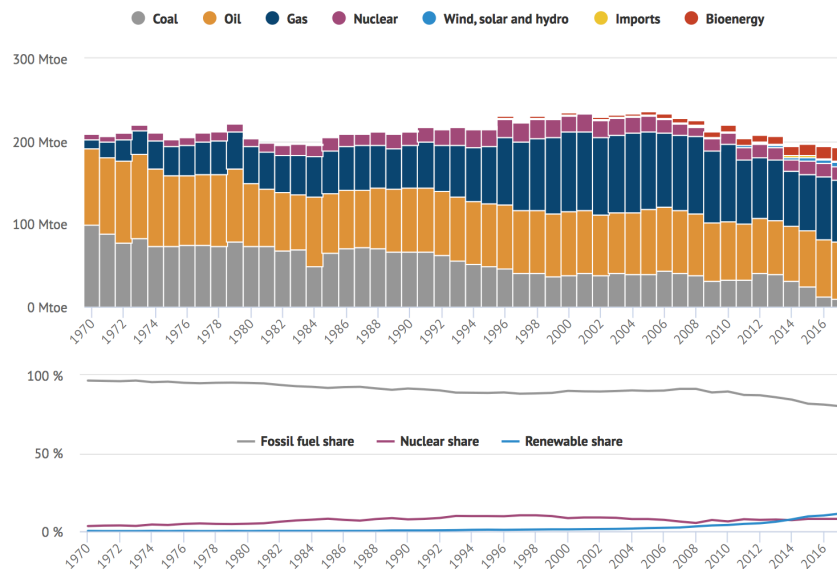


Figure 1 Top: UK primary energy use by source, millions of tonnes of oil equivalent (Mtoe), 1970-2017. Bottom: Percentage share of UK energy use.

Source: Carbon Brief (2018, n.p.), using data from DUKES (2018).

The institutional make-up of the energy system is also changing. Firstly, the move towards a more “distributed” system has seen the advent of “community energy” initiatives – associations of individuals investing in, owning and

managing small-scale renewable generating assets such as wind turbines or PV panels – emerging as an important development (Seyfang, Jin Park, and Smith 2013; Catney et al. 2014). Moreover, as this thesis will discuss in depth, municipalities are now taking more of a role within the sector. Since nationalisation, local government and municipal bodies have had little involvement in the governance, ownership or management of the energy system. However, a number of cities, including London, have recently introduced targets aiming for “zero carbon” cities. And, in September 2015, Nottingham City Council became the first UK local authority to engage with energy supply since nationalisation, entering the supply market with a company called Robin Hood Energy. The company was created with the principal goal of tackling energy poverty, and seeks to do so through offering affordable tariffs, which it claims are made possible through eliminating the need to make private profit for shareholders (Robin Hood Energy 2016). In 2016, Bristol Council launched Bristol Energy as the UK's second “municipal energy supplier” (Bristol Energy 2016) and a coalition of 53 Scottish housing associations and local authorities established a new non-profit energy company called Our Power (Our Power 2018).⁵ Since then, a number of other local authorities have subsequently partnered with Robin Hood Energy and, in some instances, private firms, in so-called “white label” municipal energy schemes, which see local authorities brand and market a tariff that is provided by the “back-end” operations of the partner company (see Chapter 5 for more details).

In London, the GLA has committed to establishing a municipal energy supplier named Energy for Londoners and, in 2017, announced that this would be a white label partnership, with the partner not yet made public. The role of Switched On London in the formation of this company will be a key question explored in the thesis. Beyond the specific question of municipal energy, London has a target of becoming zero carbon by 2050, and of increasing clean energy generation including at least one-hundred megawatts more solar by 2030, with the latter to be achieved through grants to community energy, measures to

⁵ While Robin Hood Energy and Bristol Energy remain in operation, Our Power announced it has gone out of business in January 2019 (see Chapter 5).

decrease solar costs, pilot initiatives and installing solar panels on premises owned by Transport for London (TfL, the municipal company responsible for public transport) (GLA 2018). As with all UK cities, London's electricity and gas distribution networks are owned by private firms, with the former owned by UK Power Networks, itself owned by a consortium of Hong Kong investors and the latter owned by Cadent Gas in North London and SGN in South London (Thomas 2014).

Barcelona, Spain

With the London case contextualised, I turn now to Barcelona. To understand the contemporary history of Spain and the city of Barcelona, we must begin with the period of Civil War between 1936 and 1939. Here, a broad and ultimately unstable alliance of anarchists and socialists – including thousands of international volunteers – fought off fascist invasion of the city and the surrounding region of Catalonia to institute a sustained period of anarchist transformation of government and industry, which included an estimated 75 per cent of the Catalan economy being transferred to collectivised workers' control (Gorostiza, March, and Sauri 2012). This period of social revolution came to an end when Francoist troops seized control of Barcelona in January 1939, and then the entirety of Catalonia in February. The occupation of Spain was complete by the end of March, issuing in over three decades of brutal dictatorship – which in Catalonia included the suppression of Catalan culture and language – that came to an end only with Franco's death in 1975.

Following the transition to democracy, 14 years of government led by the social democratic *Partido Socialista Obrero Español* (PSOE, the Spanish Socialist Workers' Party) began in 1982. PSOE took power after relinquishing their Marxist origins, and proceeded to implement a programme of austerity and privatisation through a period of boom-and-bust plagued by unemployment and inflation (Charnock, Purcell, and Ribera-Fumaz 2014). Neoliberal reforms were then accelerated under the rule of the right-wing *Partido Popular* (PP, People's Party) beginning in 1996 (Charnock, Purcell, and Ribera-Fumaz 2014). By 2000, unemployment had decreased from 3.5 to 2.3 million (J. Harrison and Corkill

2004) within a sustained period of economic growth that was to come to an end only with the financial crisis of 2008 (Charnock, Purcell, and Ribera-Fumaz 2014).

The 2008 crisis issued in Spain's deepest recession since the Franco-era. Employment dropped by 7 per cent between 2008 and 2009 (Meardi, Martin, and Lozana Riera 2012, 12). The unemployment rate had reached over double the Eurozone average by 2010 (Rico 2012, 219) and, by 2013, was the second highest in the EU at 27.1 per cent (INE, 2013), at which point wages had declined to 2001 levels and 21.8 per cent of the population were categorised as earning less than the average cost of living (FOESSA 2013). While the José Zapatero-led PSOE Administration first responded with a failed stimulus package, they resorted to austerity measures introduced in 2010 (Charnock, Purcell, and Ribera-Fumaz 2014). With a second recession in 2011, Mariano Rajoy's PP administration won office at the end of the year, introducing an accelerated €150 billion austerity programme, 15 per cent of annual gross domestic product (Charnock, Purcell, and Ribera-Fumaz 2014).

It was also in 2011 that opposition to austerity reached its most intense stage, with the *Indignados* movement beginning on 15 May seeing urban centres across the country occupied with temporary tent cities renouncing austerity and calling for "real democracy now" (see Chapter 5). The radical energies unleashed by this movement then underpinned the birth of a new "left populist" political party *Podemos* (We Can), launched by a group of academics and public intellectuals based in Madrid in January 2014. Less than half a year after launching, Podemos won five seats and just under eight per cent of the vote in the European Parliament elections of May 2014 on a platform premised upon opposing the EU's austerity agenda (The Guardian 2014). Then, in 2015, in part inspired by the success of Podemos and in part arising out of networks of urban social movements, new "citizens' platforms" across the country were put together to contest the May municipal elections with remarkable results. Here, local government in every major city of the country was seized by "new municipalist" projects seeking to fashion more democratic and socially just forms of urban life, Barcelona en Comú being the most high-profile example in this regard. The

Spanish political system has also been shaken by the rise of new right-wing parties *Ciudadanos* (Citizens) and *Vox*, who both position opposing Catalan independence at the centre of their reactionary programmes (Rodon and Hierro 2016).

Indeed, the Spanish state has in recent years been hit by a constitutional crisis invoked by calls for independence by various of Spain's regions, most forcefully Catalonia. The Spanish state unites 17 so-called "autonomous communities" (and two autonomous cities on the north coast of Africa). Since the inception of a unified Spanish state in 1479, its constitutive territories have retained varying degree of judicial and fiscal autonomy, with the subsequent centuries of Spanish history replete with contestation and struggle for increased autonomy and independence (Moreno 2001). With the Franco dictatorship having violently enforced centralisation, the transition period constitution of 1978 sought to achieve decentralisation while preserving unity, granting both the "indissoluble unity of the Spanish Nation" and "the right to self-government of the nationalities and regions of which it is composed" (Constitution of Spain Article 2, see: Martínez-Herrera and Miley 2010). Subsequently, and in contrast to the UK, Spain has become one of the most decentralised states in Europe (Moreno 2001).

Thus, the *Generalitat* of Catalonia – the layer of government responsible for the region – can legislate on a range of issues from budgets to health and education. Yet there remains a strong Catalan independence movement, which recently came to a head around the referendum held by the Generalitat – at this point under the rule of *Partit Demòcrata Europeu Català*, (PDeCAT, the Catalan European Democratic Party), led by Carles Puigdemont – on 1st October 2017. The referendum, which saw a 90 per cent majority vote in favour of independence (with a turnout of 43 per cent of registered voters), was declared illegal by Rajoy's PP administration in Madrid, resulting in a series of repressive measures intended to stop the referendum taking place and then to prevent its implementation, from shutting down polling stations to arresting pro-independence politicians (BBC News 2017a). Waves of grassroots mobilisation in favour of the right to self-determination emerged. The result, however, was the

successful imposition of direct rule from Madrid for seven months (The Guardian 2017), followed by the election of pro-independence Quim Torra as president of the Generalitat in May 2018 (BBC News 2018). While Rajoy's government was able to survive the dramatic events of October 2017, in June 2018 the Spanish Parliament voted in favour of a no-confidence motion, with Pedro Sanchez's PSOE administration taking office, backed by Podemos and other smaller parties (The Guardian 2018a).

What, then, of Barcelona's place within these recent political developments? With the socialist party *Partit dels Socialistes de Catalunya* (the Socialist Party of Catalonia or PSC, the Catalan branch of PSOE) in power in the city from the fall of the dictatorship in 1979 through to 2011, Barcelona developed a mode of urban governance dubbed by some commentators as the "Barcelona model". Central to this was the involvement of the city's very active neighbourhood associations – who had played a key role in the anti-Franco opposition movement – in urban planning and policy (Degen and García 2012).

Yet the forms of partnership developed between local government and civil society were fraught and began to break down in 1992 around the city's successful bid to host the Olympic Games, seen as a turn towards forms of redevelopment premised upon extractive tourism and gentrification (Eizaguirre, Pradel-Miquel, and García 2017). Indeed, the mid-90s saw the introduction of more managerial and entrepreneurial forms of urban governance, premised upon a raft of public-private partnerships and the deregulation of planning (Degen and García 2012). Frustrations within the city's traditional neighbourhood movements were accentuated. This instilled a generalised dissatisfaction with hollowed out forms of traditional democratic engagement, which has gone on to shape the forms of street mobilisation and direct action that have emerged within Barcelona in recent years (Renau and Lozano 2016).

As with the UK, the development of the energy sector in Barcelona and Spain is intricately enmeshed within the political changes described above. Before WW2, electricity and gas were organised on a regional basis by a dispersed array of independent firms (Garrués-Iruzun and López-García 2009). In 1939, seeking to establish a more centralised Spain, Franco brought the country's gas

network under state-owned monopoly control. In electricity, however, wary of the threat of nationalisation, 17 different regionally operating electricity producers established a cartel named UNESA with the aim of providing a forum for coordination between regions, seeking to eliminate the need for nationalisation (Moral Soriano 2008). Yet the state began to play a more active role in electricity following the fall of the dictatorship. In 1980, CECOEL (*Centro de Control Eléctrico*) was established as a forum through which UNESA and the state could make decisions on the electricity system together. And in 1983, PSOE nationalised the electricity transmission network, with a new public company *Red Eléctrica de España* (REE, Electricity Network of Spain) established to manage the network and the electricity system more broadly (Garrués-Iruzun and López-García 2009).

In the 1990s, processes of privatisation and liberalisation began. In 1991, the state permitted the formation of a new private gas company named Gas Natural, which in 1994 bought the previous public gas network operator ENAGAS (Moral Soriano 2008). And the victory of the PP in the 1996 general election saw the introduction of the 1997 Electricity Act, which eliminated the idea of energy as a public service, privatised REE and introduced the unbundling of the sector into distinct fields, as per the "British model" described above. Thus emerged the liberalised gas and electricity systems Spain maintains today, paralleling the UK system, meaning transmission networks and distribution networks monopoly owned and operated by private firms, alongside distinct competitive markets in electricity and gas generation and supply (Moral Soriano 2008).

The transition to renewable energy underway in Spain has thus far taken place more rapidly than in the UK. Figure 2 below shows significant increases in the rate of installation of new wind and solar capacity from the mid-2000s, alongside increases for solar and wind in the electricity mix. In 2017, renewables accounted for 32.1 per cent of all electricity generated (down from 38.4 per cent in 2016 due to declining hydroelectric generation). Further, renewables represented 46 per cent of installed electricity capacity in 2017 (Red Eléctrica de España 2017). Like the UK, this energy transition has continued despite significant cuts to renewables subsidies presided over by the PP administration

since 2012 (Díaz López 2013). The new PSOE government has signalled a different direction for energy policy, introducing targets in November 2018 of generating 70 per cent of electricity from renewables by 2030, and 100 per cent by 2050 (The Guardian 2018b). As discussed above, this would signal significant changes to the spatial and material make-up of the sector.

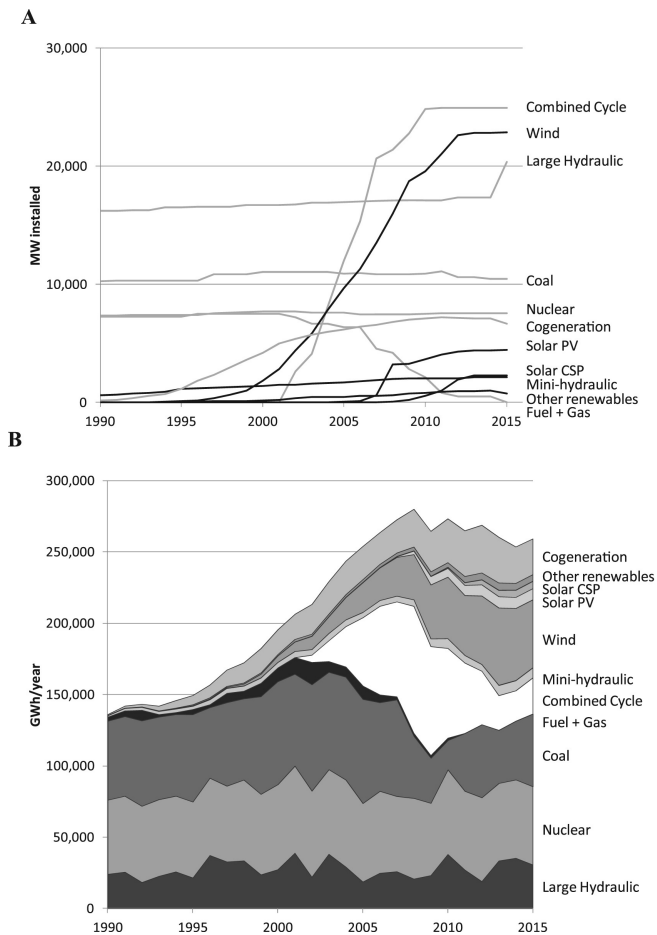


Figure 2 Changes in installed generating capacity, Spain 1990-2015 (A); Changes in electricity generating mix, Spain 1990-2015 (B).

Source: Capellán-Pérez, Campos-Celador, and Terés-Zubiago (2018, 219).

As with the UK, Spanish municipalities have played little role in the energy system until recently. In Barcelona, the new Barcelona en Comú led administration launched Barcelona Energia in February 2018 as the country's first energy supplier owned fully by municipal institutions (various different

Spanish municipalities are now exploring the potential to follow suit). The city's electricity distribution network is currently owned and operated by Spanish firm Endesa (itself owned by the Italian firm Enel), while the gas distribution network is owned and operated by Spanish firm Gas Natural Fenosa.

1.6 Chapter summary

With the thesis now contextualised, I will end this introductory chapter by summarising the chapters to come.

The next chapter, Chapter 2, seeks to build the conceptual basis for the thesis. Thus, it is in Chapter 2 that the open dialectical perspective alluded to above is more fully set out, with the chapter introducing the ways in which open dialectics can inform theoretical debates around energy, the urban and the state. This chapter also reviews existing scholarly interventions pertaining to energy democracy, establishing how my thesis will build upon this scholarship to make an original contribution to academic debates around energy democracy.

In Chapter 3, I turn to methodological questions. It is here that my own distinctive take on scholar-activism is developed, as well as the method of relational comparison adopted in the thesis. This chapter ends with a discussion of the specific research methods deployed.

Chapter 4 is the first of three chapters in which the experiences of energy democracy initiatives in London and Barcelona are discussed. In this chapter, I begin my reflections on Switched On London and Barcelona Energia. The chapter enquires as to why municipal energy has emerged as an important vision of energy transition for activists and progressive politicians in London and Barcelona, and interrogates the novel visions of democratic municipal energy arising in both contexts. I argue that the municipal energy initiatives in question emerged out of the interplay of the activist pursuit of a radical politics of energy transition on the one hand, and new experiments in progressive statecraft on the other hand. Through the course of making this argument, I engage with theoretical discussions around post-politics, challenging some of the central claims made within these debates.

If Chapter 4 addresses the emergence of municipal energy as a hopeful

activist imaginary, Chapter 5 interrogates the ways in which municipal energy has been translated into official policy in London and Barcelona. This chapter deploys and animates the open dialectics of the state introduced in Chapter 2 to analyse municipal energy initiatives as produced through the interaction of what Joe Painter (2006) refers to as prosaic practices with the spatially and temporally extended processes within which these practices are enmeshed. I argue that the process of market liberalisation, and the failure of municipal energy schemes to challenge this, serves to dampen the democratic aspirations of these schemes and, thus, limits their potential for building energy democracy. Yet municipal energy schemes, I suggest, retain political promise by virtue of their capacity for expanding the political imagination and opening up new terrains of struggle vis-à-vis the state.

Chapter 6 then moves the discussion away from the question of energy democracy in its more institutional guise towards the alternative approach to energy democracy distinguished in the thesis, pertaining to the expansion of energy agency. The chapter begins by discussing the frustrations felt by Switched On London activists, with the campaign reproducing the dominance of expert knowledge within the energy system. I then turn to the Barcelona context, interrogating the "everyday energy politics" enacted by APE. I argue that APE fashion forms of collectivised social reproduction in the face of the loneliness and isolation of neoliberal urbanism, in turn helping to usher in new unruly affects, subjectivities and forms of situated knowledge that begin to reconfigure agency over the energy system.

The thesis concludes, in Chapter 7, by making the case for thinking and doing energy democracy in ways that move in-against-and-beyond the state. I end by suggesting that this approach to energy democracy can help inform debates around the democratisation of socio-ecological production more broadly, clarifying the relevance of this for the question with which this introductory chapter began, namely, that of the possibilities for radical politics in the face of climate change.

2. Conceptualising Urban Energy Democracy

Without social, political, and economic change, the future of our species and many others is seen to be at risk... For geographers this presents a host of new challenges. Although a robust critical literature has done much to help us understand how we have arrived at this juncture and has highlighted the deeply uneven geographies of socioecological change, it has been far less successful at imagining and engendering just and sustainable alternatives to existing political, economic, and ecological practices. (Braun 2015, 239)

2.1 Introduction

In the face of today's deeply worrying socio-ecological predicaments, most geographers (and critical scholars more broadly) would profess to an interest in supporting the creation of alternative, more hopeful futures. Yet, as Bruce Braun suggests in the extract above, far more scholarly energy is currently devoted to analysing the precise constitution of what Marx (1998) once referred to as "the present state of things", rather than charting pathways towards their abolition and replacement.

This, for Braun, results from the conviction that endeavours to shape the future must be informed by our understandings of history, alongside a suspicion of normative or utopian speculation. My own instinct is that careful historical analysis will always remain a vital task for critical scholarship. And, moreover, I see much wisdom in the critique of utopian thought. Yet, as alluded to in the previous chapter, Mann and Wainwright's quest for "Climate X" is a call to reject capitalism and planetary sovereignty *"while affirming other possibilities"* (2018, 197, my emphasis). Indeed, this thesis will show that environmental activists, after decades of oppositional action and resistance, have come to feel an urgent need to articulate alternative socio-ecological imaginaries (see Chapter 4). And because, as I will explain in Chapter 3, I believe in a form of scholarship that seeks to "resource" activism (Derickson and Routledge 2015), I therefore see a need for a more future-oriented mode of theorising. What kinds of conceptual resources, then, might existing bodies of critical scholarship offer for endeavours

to build more just and democratic futures and, in particular, those pertaining to the energy system? This is the question taken up by this chapter.

Firstly, it should be noted that there is a rich abundance of scholarly work on democracy and its various theorisations. From Hobbes (2017) to Habermas (1996), the question of how democracy ought to be understood has been one of the central questions animating political thought. Numerous different conceptualisations of democracy are now distinguished: representative democracy; direct democracy; deliberative democracy; participatory democracy; liberal democracy; grassroots democracy; radical democracy; technical democracy; economic democracy; the list could continue.

Yet how are we to begin thinking through the question of democracy with regards to energy? This is the question animating this chapter. I begin by theorising “energy” itself. Through a focused discussion of three recent key texts within the energy social sciences – Timothy Mitchell's (2011) *Carbon Democracy*, Matt Huber's (2013) *Lifeblood* and Andreas Malm's (2016) *Fossil Capital* – I unearth a pivotal debate between historical materialist and new materialist approaches. Charting a path out of this apparent deadlock, I draw on the work of Hart (2017) to make the case for a form of open dialectics that provides the theoretical framing for the thesis more broadly.

With this theoretical perspective outlined, and the stakes for debates around the conceptualisation of both “energy” and, additionally, the “urban” clarified, I then move on to examine the ways in which energy democracy has thus far been discussed in the scholarly literature. In doing so, I introduce the distinction underpinning the core argument of the thesis, according to which there are two interrelated ways of conceptualising energy democracy, the first of which seeks to transform the institutions of energy governance and the second of which seeks to expand agency within the energy sector. The remainder of the chapter proceeds to develop this distinction. In discussing the former understanding of energy democracy, I draw out new conversations between literatures on the commons, post-politics and the state. And in addressing the latter approach, I put the political philosophy of Jacques Rancière into dialogue with variegated approaches to the politics of everyday life. In exploring these

different literatures together, I hope to establish the theoretical foundations for the remainder of the thesis.

2.2 Theorising “energy”

The “energy” of physics textbooks is usually defined as the ability to do work (Walker and Shove 2014). It is energy that sets matter in motion, which makes things happen. Energy also does much social, cultural, political work. This is the energy implicated in debates around the injustices of rapidly warming global temperatures. This is the energy whose absence issues in poverty, respiratory illness, even riots. This is the energy whose so-called “security” is the subject of dramatic geopolitical volatility, whose fluctuating prices underpin turmoil in the global marketplace.

It is, then, little surprise that recent years have seen blossoming geographical interest in questions of energy. Yet a few important early engagements notwithstanding (Hoare 1979; Calzonetti and Solomon 1985; Solomon, Pasqualetti, and Luchsinger 2003; Watts 2004), the establishment of energy geography as a vibrant area of research has arguably been somewhat delayed. Thus, for example, while infrastructure has been a core concern within the discipline for some time, the majority of the geographical literature on infrastructure focuses on the specificity of water rather than energy (Bridge 2016).

Still, the core insights from infrastructure studies have proved useful in establishing the conceptual foundations for energy geography. It is easy to think about infrastructure as the solid and inert backdrop against which the messy business of politics takes place. Conceived as such, questions about infrastructure are principally technical, to be left to specialists and experts. However, Stephen Graham and Simon Marvin’s influential *Splintering Urbanism* (2001) positioned urban infrastructure networks as central to the contested politics of the city. In this vein, subsequent works such as Swyngedouw (2004) and McFarlane and Rutherford (2008) have shown that urban infrastructure networks are sociotechnical: the materiality of urban infrastructure and the political ecological dynamics of the city co-evolve together. In short, politics shape infrastructure;

infrastructure shapes politics – a conclusion that technology scholar Thomas Hughes reached in his seminal (1983) history of Western electrification.

Developing this perspective further, urban political ecologists have approached urban infrastructure networks as reified forms emerging out of the contested hybrid socio-ecological processes that constitute the urban metabolism (Swyngedouw 2004; Gandy 2005; Heynen, Kaika, and Swyngedouw 2006; Loftus 2012). As such, Matthew Gandy (2005), drawing on Donna Haraway (1991), argues that urban infrastructure networks are “cyborg” in character, at once human and technological, melding variegated representations, practices, affects, emotions and materialities.

The limited engagement with energy on the part of infrastructure scholars is an unfortunate oversight (for notable exceptions see: Rutherford and Coutard 2014; Moss 2014; Silver 2015; Luque-Ayala and Silver 2016). Energy is a supreme example of the way in which dazzling technical abstraction around questions of “infrastructure” can obfuscate political contestation. Addressing this question, Nick Hildyard and Larry Lohmann (2014) of research collective The Corner House note that attempts to devote critical attention to energy issues tend to overlook the vital question of what, precisely, “energy” is. They write:

today’s dominant conception of energy is itself a political problem...This concept – call it Big-E Energy – signifies the energy of thermodynamics, of electromagnetism, of the fusion of heat, motion and electricity in steam engines, turbines, dynamos, electric motors and electric grids. It stands simultaneously for photosynthesis, nuclear, solar and muscle power, and the force generated by the internal combustion engine. (p.6)

There is, then, no “magical substance” called “energy” (p.6) but rather several distinct socio-ecological processes that the term “energy” abstracts from. This abstract concept, moreover, has a “bloody genealogy” (p.25), emerging in the nineteenth century within the development of thermodynamics, motivated by the development of the engines and motors necessary to facilitate automation, sought by capitalists as a powerful disciplining tool against labour. Yet while the birth of the concept of “energy” was one aspect of a dynamic process of violent enclosure

and dispossession inherent within the development of industrial capitalism, Lohmann and Hildyard show how the “scientific” (and, thus, supposedly apolitical) origins of “energy” helped enable, in the terminology of Marx, its fetishisation as a thing-like substance, with the processes of struggle and contestation that shape the flow of energy rendered as invisible.

The geographical engagements with energy developed over the past few years tend to pursue a de-fetishised understanding of energy by adopting a relational approach (Huber 2015b; Hui and Walker 2018). Summarising the stance taken within recent energy geographies, Kirby Calvert (2015, 6) suggests that these facilitate “a shift from conceptualizing energy as an economic asset or ecological phenomenon to conceptualizing energy as a social relation.” Energy flows across and between scales, territories and landscapes, producing space in the process and, in turn, being produced through historically and geographically constituted socio-ecological processes (Bridge et al. 2013; Bridge 2018; Paul 2018). In sum, “physical energy flows and social energy demands are co-productive of socio-spatial relations” (Calvert 2015, 1).

With the necessity of a spatial perspective on energy established, a plethora of recent special issues and edited volumes have sought to develop this approach further, helping to establish energy geography as one of the most quickly growing and exciting fields within the discipline (Zimmerer 2011; Frantal, Pasqualetti, and Van der Horst 2014; Castán Broto and Baker 2018; Bouzarovski, Pasqualetti, and Castán Broto 2017; Solomon and Calvert 2017; Bridge et al. 2018). Several themes have emerged here, including: energy poverty (Harrison and Popke 2011; Walker and Day 2012; Bouzarovski 2014; Bouzarovski and Petrova 2015); energy access, metering and disconnections (Baptista 2015; Silver 2015; Pilo 2017); peak oil (Bailey, Hopkins, and Wilson 2010; Bridge 2010a, 2010b) energy security (Bradshaw 2009; Bridge 2014); energy consumption and demand (Walker 2014; Walker and Shove 2014; Shove, Watson, and Spurling 2015); energy justice (Bickerstaff, Walker, and Bulkeley 2013; Sovacool and Dworkin 2015; Jenkins et al. 2016) and energy transition.

The latter question, that of the energy transition demanded by some of the converging challenges alluded to above, is particularly relevant for the purposes

of my thesis. Here, the concept of “low-carbon experimentation” has proved a fruitful inroad for geographical understandings of the ways in which energy networks are being reconfigured (Bulkeley et al. 2011; Hodson and Marvin 2013; Bulkeley, Castán Broto, and Maassen 2014; Bulkeley, Castán Broto, and Edwards 2015). On this view, sociotechnical transformation is not a straightforward shift from A to B, but rather:

a continual reconfiguration and renegotiation of socio-technical networks. Transformation is not here an end point, for which such interventions provide the initial signpost, but rather is already present in the politics and practice of governing by experiment. (Bulkeley et al 2015, 237)

This approach is, in part, a reaction to the "multilevel perspective" advanced by proponents of Sociotechnical Transitions Theory. To answer the question of how sociotechnical systems change in the face of the tendency towards path-dependency and infrastructural lock-in (Bailey and Wilson 2009), Transitions Theory seeks to learn from historic examples of large-scale sociotechnical change such as the advent of piped water (Geels 2005) or electricity (Verbong and Geels 2007). Its proponents typically argue that transitions have their origins in "niches", understood as innovative institutions and projects that run counter to dominant sociotechnical “regimes”, with the latter understood as the deeply embedded norms that direct and reproduce systems.

This outlook has frequently been criticised as apolitical, obscuring questions of power and agency (A. Smith, Stirling, and Berkhout 2005; Shove and Walker 2007; Smith, Voß, and Grin 2010; Lawhon and Murphy 2011). Geographers, moreover, have argued that Transitions Theory fails to account for the spatial dimension of sociotechnical transition (Hodson and Marvin 2010; Lawhon and Murphy 2011; Bridge et al. 2013; Moss 2014; Bulkeley, Castán Broto, and Edwards 2015). Transitions, on this view, are assumed to take place at the nation state level, ignoring how sociotechnical change occurs across space, at a variety of scales, embedded in particular locations.

In contrast, this thesis endeavours to contribute to the development of a spatialised, historicised and relational understanding of energy. In particular, I seek to look beneath the bewildering and exclusive technical discourses – scientific, economic, legalistic – that have come to dominate our understandings of energy to show that the ways in which we power society are intricately connected to contested political questions.

2.3 Conflicting materialisms or false antitheses?

To make a start on building some of the theoretical foundations I will need to do this, I will consider one of the liveliest debates within the energy social sciences and critical social theory more generally: that between two positions broadly characterised as “historical materialist” on the one hand, and “new materialist” on the other. The differentiated ways in which these positions are understood and defended will be returned to in greater depth soon. For now, suffice to say that while historical materialists foreground Marx's interest in analysing capitalist social relations and, with specific regard to the question in hand, the ways in which these interact with the energy system, new materialists are more interested in the agency of the non-human world and thus tend to focus on the social and political implications of the energy system's material, biophysical characteristics. This initial distinction notwithstanding, in what follows I hope to challenge the dichotomy between understandings that foreground capitalism and those that foreground materiality. To do so, I proceed by zooming in on three specific recent accounts influential within the energy social sciences: the historical materialist approaches of Malm (2016) and Huber (2013), and the new materialist approach of Mitchell (2011).

In *Fossil Capital*, Malm (2016) develops an ambitious revisionist history of the transition from water to steam-based power in 19th-century England. While previous accounts of this transition have emphasised either Ricardian-Malthusian claims around land and water scarcity, or else technological-determinist narratives of steam's inherent advantages, the evidence mobilised by Malm suggests that, far from this, water power was less expensive, more readily available and no less technologically advanced than steam. Instead, Malm argues

that this transition was primarily to be explained through the specific characteristics of capitalist social relations.

The issue, here, was that the material characteristics of coal-based steam power enable a form of energy-society relations more amenable to the imperatives of capitalist class power. Water is mobile across landscape and more difficult to enclose and privatise than coal, which is solid, static, easy to transport and altogether less "unruly" (see also: Bakker 2013). As such, the materiality of water, to be efficiently mobilised as a source of energy, was deemed to require forms of collective coordination and planning that mid-nineteenth century mill-owners saw as supremely less desirable than the readily commoditised coal. What's more, while water is difficult to transport and, hence, fixes production in remote rural locations, the mobility of coal allowed production to be located wherever labour is most easily and cheaply procured and disciplined.

While Malm's principle focus is on the role of fossil fuels within early industrial capitalism, Huber's (2013) *Lifeblood* turns our attention to the Fordist settlement of the 20th century. Huber situates the materiality of oil as enmeshed within the construction of what he terms the "American Way of Life". This, for Huber, is an historically specific geography of privatised social reproduction, emerging in the New Deal of the 1930s, based on a newfound command of space via automobility and a new regime of the "home" premised upon single-family suburban dwelling and the extensive proliferation of domestic consumer products.

There is, writes Huber:

no such thing as oil-in-itself. Oil is better understood as a social relation. This is not the same as saying that oil is a cultural construction or that nature is simply a cultural product of human discourse. Rather, it is a simple assertion that oil's biophysical capacities only come to be mobilized in specific historical circumstances and through particular social relations. (P.4)

Huber's argument is that oil's materiality – as an abundant, liquid, flowing and flexible source of cheap energy – was mobilised to revitalise US capitalism in the midst of the Depression, providing the ecological basis for a Keynesian

programme of higher wages and mass consumption. Thus emerged the Fordist bargain, with workers accepting a new regime of alienated labour in the sphere of “work” in return for a new realm of “freedom” in the rigidly demarcated realm of “life”. The American Way of Life that emerged was atomised and individualised, premised upon privatised transportation, housing and leisure-pursuits. This helped dissipate feelings of social connection and solidarity, providing an affective pathway towards neoliberal economic policies of privatisation and liberalisation.

While we might summarise Huber’s perspective as instructing us to follow the social relations, Mitchell (2011) asks us to “follow the production and circulation of oil itself”. (P.5) *Carbon Democracy* charts the emergence of modern liberal democracy, conceptualised by Mitchell as “democracy as oil – as a form of politics whose mechanisms on multiple levels involve the processes of producing and using carbon energy.” (P.5) Mitchell’s argument is that the geophysical qualities of carbon energy have played an integral (yet non-deterministic) role in shaping and re-shaping political life across the globe, over the past two hundred years. The geophysical characteristics of coal, for instance, require large concentrations of workers hidden underground at pivotal “choke points” in the economic value chain. Blockage and sabotage at these points presented organised labour with a powerful form of leverage for furthering emancipatory claims. In contrast to coal, the geophysical properties of oil require an infrastructure and workforce that is more spatially dispersed. The flow of oil is flexible, capable of evading potential barriers. Thus, the shift from coal to oil helped disempower popular struggles.

Malm, Mitchell and Huber each offer their own important insights into the relationship between energy and society, fossil fuels and political economy, the human and the non-human world. Reading these texts together can help us navigate a way through the historical materialist versus new materialist stand-off. Within this debate, historical materialists are accused of inscribing binary distinctions between society and nature (Whatmore 1999) and of inadequately theorising agency, both that enacted through the messy contingencies of human bodies and practices, and the vibrancy of the non-human world (Bennett 2010;

Lorimer 2013). New materialists, in turn, are said to risk depoliticised accounts averse to normative evaluation, and of downplaying the extent to which socio-ecological relations are directed, for instance by the imperatives of capitalist accumulation (Kirsch and Mitchell 2004). In the midst of this debate, several accounts including Castree (2002), Loftus (2012) and Royle (2017) have attempted to excavate some of the common ground between these approaches, with Castree suggesting that the historical materialism versus new materialism dichotomy rests upon “false antitheses”. Indeed, my suspicion is that there is less theoretical divergence between Malm, Huber and Mitchell than we might initially think.

Crucially, each author goes amiss when they over-state the role of materiality. Thus, Mazen Labban (2015) notes that Huber appears to contradict his own rejection of a thing-like oil imbued with agency with references to oil as an “active material force in itself” (xiv), alongside notions of “oil-powered privatism” (p.120) and “oil-powered life” (p.123). In response, Huber (2015a) stresses his commitment to a relational ontology, attributing apparent lapses into determinism as resulting from misleading rhetorical flourish.

The adoption of this relational ontology by Huber and others is vital to grasp in thinking through the critiques often levelled at marxist accounts premised upon the method of dialectics. Dialectics is often understood as a mode of theorising grounded on binary oppositions – a thesis and antithesis – which through the teleological progression of history come to relate and in the process create a new synthesis. Yet many contemporary marxian approaches take a very different view. The crucial step here is following Ollman (2003) in understanding dialectics as a philosophy of internal, rather than external, relations. It is when dialectics is read as seeking to understand the relation between distinct demarcated “things” that somehow relate to each other that binary oppositions, for instance between society and nature, can develop. Yet for Ollman and the many influential marxist approaches that share his approach, the point is to de-fetishise stable “objects” and “things” by understanding these as the product of dynamic and contested social relations, or, in more recent political ecological accounts, socio-ecological relations (Ollman 2003; Harvey 1996b, 2008a; Loftus

2012; Hart 2017). Here, then, arises the relational ontology that Huber, Labban and others subscribe to. On this view, there is no bounded agentic substance called "oil" that exists over and above a series of dynamic socio-ecological processes.

Just as Labban (2015) accuses Huber of an overemphasis on materiality, Mitchell is criticised by Labban (2013) on the same grounds. The argument pressed by Labban is that Mitchell's history is found wanting on its failure to account for questions of political consciousness, alliances and mobilisation, lapsing into energy determinism. We can, though, read Mitchell as over-stating his argument at times. At the numerous points throughout the text in which Mitchell carefully summarises his theoretical perspective, he always talks in terms of "relations" and "connections" between materiality and social relations. Thus, for example, he writes:

Exploring the properties of oil, the networks along which it flowed, and the connections established between flows of energy, finance and other objects provides a way to understand how the relations between these various elements and forces were constructed. The relations connected energy and politics, materials and ideas, humans and non-humans, calculations and the objects of calculation, representations and forms of violence, the present and the future. (P.253)

Granted, Mitchell, unlike Huber, has no qualms about talk of objects, substances and things. Yet his claim is that political life has been "enabled" and "shaped" (p.252) by particular materialities in ways always connected to historically and geographically specific forms of human activity. This, to me, does not look entirely alien to the way in which Huber explains his conceptualisation of oil as a social relation: "a simple assertion that oil's biophysical capacities only come to be mobilized in specific historical circumstances and through particular social relations." (Huber 2013, 4) Indeed, Mitchell's position in this regard looks markedly similar to Malm's, with the latter emphasising the ways in which the materialities of coal enabled the consolidation of capitalist class power in various ways.

However we read these texts, the most important question to grapple with is what kind of reading of energy – and socio-ecological life more broadly – emerges. New materialists such as Mitchell have persuasively shown that the material aspects of the non-human world help shape the broader socio-ecological environment. Yet the materialities of the sources of energy we deploy do not determine social or political effects. Rather they help shape and are shaped by historically and geographically specific socio-ecological relations. There is nothing about the "coal-y-ness" of coal that rendered the transition to steam in the 19th century as historically inevitable. Oil did not necessitate an atomised and entrepreneurial regime of social reproduction, nor was it the sole determinant of autocratic regimes in the Middle East. If these materialities had interacted with different socio-ecological relations, different outcomes would have ensued.

The crux of the matter, to my mind, is that the ontological prioritisation of relations and processes favoured by Huber and other dialecticians seems preferable to the new materialist ontology of things. All "things" such as a barrel of oil or a high-voltage electricity cable have a specific history. Dialectics insists, restlessly, that this history must be told, that this is likely a history of struggle with important political implications. If our story ends at the thing, it is incomplete. What new materialism, illuminates, though, is that material properties – the specific geophysical characteristics or oiliness of oil, for instance – are one of myriad factors operative within the dynamic processes that constitute socio-ecological life. Huber's is just one of many recent examples of a dialectical approach that takes non-human agency and materiality seriously, while also avoiding common criticisms of determinism and binarism through a rejection of crude base–superstructure distinctions and a refusal of dualistic separations such as that between humans and nature or production and reproduction (see also Swyngedouw 2004; Loftus 2012).

2.4 Open dialectics

Indeed, a particular understanding of dialectics will be deployed and developed throughout the thesis, including but not limited to the ways in which energy is

theorised. This is the "open, non-teleological conception of dialectics" (p.371)⁶ adopted by Hart (2017) in her work on "relational comparison".

Hart's argument takes place, in part, via a sympathetic critique of Harvey's influential take on dialectics. In *Justice, Nature and the Geography of Difference*, alongside a range of other pieces (Harvey 1996b, 2008a, 2009), Harvey draws on Ollman (2003) to set out a number of principles that inform his dialectical method. Central here is the ontological prioritisation of processes over things, as discussed above. Where Hart departs from Harvey is on the question of how, precisely, processes are to be understood. Dialectics, for Harvey, seeks theoretical parsimony by understanding "things" as emerging out of "common generative processes" (Harvey 1996b, 58). As such, Harvey writes: "we can conceive, for example, of a common process of capital circulation giving rise to an infinite variety of physical city landscapes and social forms." (1996: 58) This, for Hart, drawing on McMichael (1990) and feminist critiques of Harvey, results in an overly "encompassing" approach, "positing a general process a priori, of which specific 'cases' are variations" (Hart 2017, 380).

It is this kind of encompassing theory, Hart suggests, that leaves historical materialism open to critique from poststructuralist and postcolonial accounts. For the complexities and contingencies of difference on the grounds of race, gender, sexuality and other vectors are demoted to the mere consequences of overarching processes. Hart's interest, in contrast, is in an understanding of processes as constituted through difference. On this account, the "complex mediations" (Hart 2017, 381) of difference and the contingent practices of everyday life are both cause and effect of broader processes extending beyond the immediate spatio-temporal conjuncture. Here, Hart draws upon Stuart Hall's (1980a) work on the relation between race and capital in Apartheid South Africa. The point for Hall and later, Hart, is to refuse to treat differentiated moments within the complex social totality such as "race" and "capital" as distinct – we

⁶ Note that the conception of open dialectics explored in the thesis is not to be confused with the "Open Marxism" adopted by the likes of John Holloway, Werner Bonefeld, Richard Gunn and Kosmas Psychopedis (see for instance: Bonefeld, Gunn, and Psychopedis 1992; Holloway 2002). Open Marxism offers an important approach to dialectics, yet tends to draw more on the negative dialectics of Theodore Adorno (1990) than the theorists inspiring Hart's account.

must, then, reject analyses that focus on just one of these at the expense of the other. Thus, seeking to avoid both economic reductionism and purely “cultural” accounts that obfuscate the role of capitalist relations within the Apartheid context, Hall develops Althusser’s concept of “articulation” to analyse the ways in which race and capital are brought into relation or “articulated” through contingent, historically and geographically specific practices. Situated, non-determined practices (raced, classed, gendered) and the lived experiences and layers of meaning that accompany these, are the point at which processes meet, “articulate” together, and subsequently are remade.

There is, then, no universal process of capital circulation existing over and above localised variations. Rather, an open dialectical account insists that a process such as the circulation of capital both constitutes and, crucially, is *constituted by* the multiple relations and practices enacted by and between particular people in particular places at particular times. This is not to re-inscribe fetishised individuals or things existing prior to these processes. Rather it is to acknowledge that just as all things are constituted by processes, processes are not monolithic juggernauts emerging from out of nowhere but, rather, are made through the specificities of their constitutive “parts”. The point, following Marx’s method in the *Grundrisse* (1973), is to trace the two-way co-evolutionary movement between the abstract and the concrete, the whole and its parts, processes and their mediations.

A contribution I seek to make in the thesis is to engage Hart’s understanding of open dialectics with questions of materiality. For while Hart frames her argument as an intervention in the debate between Marxism and post-structuralism/post-colonialism, the implications for new materialist currents of the latter are not explored. If we are to de-demonise dialectics fully, the role of materiality must be accounted for. Thus, my contention is that materiality acts as another specific form of difference, playing an actively constitutive role in processes extending across space and time. Just as the process of capital accumulation both shapes and is shaped by the contingent mediations of race, gender and sexuality in a specific historical-geographical moment, so too

capital accumulation shapes and is shaped by the contingent mediations of specific material relations and properties.

To return to Malm's (2016) account, for example, a supreme simplification of his argument is that climate change – which is remaking the biophysical make-up of the planet in spectacular ways – emerges out of the processes of capital accumulation. In this way, we see processes of accumulation actively constituting non-human materialities. Perhaps the more interesting insight from Malm, however, is that the material properties of coal-based steam reconfigured relations between capital and labour in fundamental ways, simultaneously transforming the spatialities of accumulation. As such, non-human materiality emerges as a constitutive force within the accumulation processes. This, I think, accords with the argument I made in the previous section. Here, I suggested that the new materialist fetishisation of things should be resisted, while the role of material properties as one (of multiple) active determinants within the broader processes shaping socio-ecological life should be preserved.

Thus concludes, then, my exposition of the open dialectics that will inform the theoretical outlook of the thesis. Having clarified the stakes of this for the question of the conceptualisation of energy, I now turn to the ways in which open dialectics will inform my approach to another key concept within the thesis, namely, the concept of the "urban".

2.5 Theorising the “urban”

As noted in Chapter 1, this thesis is an exploration of the question of energy democracy as raised in a specifically urban context. There is, of course, an extremely extensive literature on how the urban itself is to be conceptualised. A comprehensive review of these debates is beyond the scope of the thesis, yet it remains important to clarify the distinctive approach to the urban to be adopted.

Thus, it must firstly be stressed that I will not treat the cities of London and Barcelona as inconsequential backdrops for the energy struggles I attend to but, rather, seek to show how the specific historical geographies of these cities are operative factors in the making of these struggles. In this sense, I am inspired by Henri Lefebvre's pivotal insight that space is not a passive and inert vacuum

within which social life occurs but, rather, is actively produced by and in turn a producer of power-laden processes (Lefebvre 1991). If space is produced in this way, then understandings of cities as fixed and stable bounded units must be cast aside. Lefebvre, then, incites us to de-fetishise the city, instead looking to an ongoing, dynamic and contested process of urbanisation out of which cities are made and remade (Harvey 1996a).

This process-based urban theory helps to ground the approach of urban political ecologists, according to which the city is a constantly evolving *socio-ecological* process (Swyngedouw 2004; Gandy 2005; Heynen, Kaika, and Swyngedouw 2006; Loftus 2012). Drawing on Neil Smith's (1990) work on the "production of nature", according to which all that is considered as "natural" is produced through historically and geographically specific human interactions with the non-human world, urban political ecologists conceptualise the city as a produced nature like any other. It is in this sense, then, that the urban process is at once social and ecological.

While Lefebvre himself was less adept in his own understanding of "nature", which he tended to romanticise as the pristine "other" to the dirt and smog of the urban environment (Loftus 2012), disrupting dualistic distinctions between the urban and the rural was at the heart of his spatial theory. In the *Urban Revolution* (1970), Lefebvre famously argued that the traditional distinction between the city and the country no longer holds. Rather, the "urban fabric" is rapidly extending across the globe, with rural areas transformed by the demands of urban centres through phenomena such as suburbanisation and the industrialisation of agriculture. In recent years, a certain reading of this argument has inspired a number of provocative interventions within urban studies, according to which urbanisation is now a "planetary" process (Brenner 2013; Brenner and Schmid 2012; Merrifield 2012; Brenner and Schmid 2015). According to Brenner and Schmid, the key protagonists of the planetary urbanisation hypothesis, no corner of the globe is left untouched by capitalist urbanisation. There is, it is suggested, no longer a rural or non-urban "ontological Other"; what was previously conceived as such "has been internalized into the very core of the urbanization process" (Brenner and Schmid 2015, 174).

The planetary urbanisation hypothesis has incited a number of critical responses (Roy 2016a; Ruddick et al. 2017; Jazeel 2018), resulting in a debate conducted in the polarising register that Hart's open dialectical approach seeks to disrupt. Thus, for example, Kate Derickson's (2015) Progress Report on urban geography counterposes the marxism of planetary urbanisation advocates with the perspective of post-colonial detractors (Derickson 2015). On the latter perspective, planetary urbanisation is said to reflect a Eurocentric and totalising mode of theorising in which the experiences of major cities of the global north are drawn upon to posit a universal process of urban accumulation out of which all socio-ecological life across the world is being fashioned. In contrast, Derickson (2015) argues that feminist and post-colonial approaches carve out an "urbanisation from below". On this account, capitalist urbanisation always has its "constitutive outsides": forms of livelihood, subjectivity, social relations, struggle and difference that actively shape and are not fully subsumed to the urbanisation process (Ruddick et al. 2017).

Yet Hart (2017) shows us that we need not choose between a marxism premised upon encompassing processes, and a post-structuralist/post-colonialism premised upon difference and everyday life. Rather, a marxism that embraces open dialectics refuses to assert universal processes riding roughshod over difference to instead analyse the production of spatially and temporally extended processes through difference. An open dialectics of the urban, then, does not shy away from tracing connections between differentiated spaces and times on account of shared socio-ecological processes such as capitalist urbanisation. Yet these processes are understood as, in part, the product of the contested practices and subjectivities of everyday life within specific historical geographical conjunctures. Just as cities, then, must not be understood as bounded units, equally they must not be understood as particular variations of an overarching urbanisation process. Instead, cities are better understood "as vantage points from which to try to begin to grasp the coming together and interconnections of what (at least initially) appear as key processes" through their constitutive mediating parts (Hart 2017, 389).

While, then, neither "London" nor "Barcelona" figure as stable units of analysis within the thesis, I seek to understand the ways in which these different parts of the world might be connected through shared socio-ecological processes, while simultaneously unearthing the ways in which these processes are made through the contingent practices enacted within these differentiated yet linked historical and geographical moments. And, returning to the core Lefebvrian insight with which this section began, I will analyse the practices and processes in question as actively constituted by specific spatialities and temporalities.

To summarise the discussion thus far, through developing an open dialectical perspective, the chapter has established a theoretical basis for approaching the questions of "energy" and the "urban" attended to in the thesis. What, then, of the ways in which the *democratisation* of urban energy networks might be conceptualised? This is the question animating the remainder of the chapter.

Before moving on to discuss the question of democracy as pertains to the specificity of urban *energy*, it is worth noting that the urban writ-large has long been associated with processes of democratisation. Democracy, of course, is typically thought to have originated in the Athenian city. More recently, Lefebvre's much-discussed (1968) call for the "right to the city" is in many ways an incitement towards the democratisation of the production of urban space (Purcell 2002; Harvey 2012; Barnett 2014). The right to the city is not simply a right to visit or access the city and urban goods and services but, rather, is a clarion call for struggle guided by the notion of autogestion (self-management). This is an antagonistic process by which urban residents claim centrality in all aspects of the decision-making that shapes the city, and thus the foundations of the shift towards an urban society defined by the priority of use value over alienated commodity exchange (Lefebvre 2009b; Brenner and Elden 2009). As such, Purcell (2002) summarises the right to the city as being concerned with both the appropriation of urban space for human use, and participation in the processes underpinning urban space's production.

This aspiration towards urban democratisation has proved extremely influential in the development of various modalities of critical urban theory, from

the project of urban political ecology to democratise the production of urban nature (Swyngedouw 2004; Loftus 2012), through to recent ideas around the urban commons (Chatterton 2010; Harvey 2012; Becker, Beveridge, and Naumann 2015a) that I will return to soon. Clive Barnett (2012, 2014, 2017) argues that underpinning such accounts is an implicit principle that he names the "all-affected principal", a notion deriving from Habermas (1996) "according to which all those whose interests are potentially affected by a decision should have a say in the shaping of that decision" (Barnett 2014, 1627). Yet Barnett's (2014) argument is that urban theory's engagement with democracy ought to go in more normative directions, paying more focused attention to the various contingent ways in which cities might be pushed towards more democratic trajectories. By examining the ways in which this process of democratisation is taking place around the specific materialities of urban energy networks, I hope that my thesis might contribute to this task. It is to this question of energy democracy that I turn to now.

2.6 Energy democracy: scholarly perspectives

A number of recent contributions within the energy social sciences have focused upon the concept of energy democracy, seeking to understand its usage among activists, practitioners and policymakers and, additionally, attempting to hone down more refined understandings of the term. Szulecki (2018) takes on this latter task, conceptualising energy democracy as a form of governmentality premised upon the creation of new informed, aware and responsible "prosumer" citizens. The "prosumer" – the energy "consumer" who also produces energy, using new small-scale renewable technologies such as rooftop solar PV – has become something of a panacea in energy policy debates. Yet the centrality of the prosumer here seems somewhat conspicuous for, in my experience, energy democracy advocates tend to be sceptical of the idea, associating it with an atomising neoliberal approach to energy transition in which individual subjects, rather than collectivised provision, take centre-stage (see for instance: Carbon Co-op 2018). Indeed, Szulecki seems to lose sight of the ways in which energy

democracy is being deployed in political struggle, with clear antagonistic implications (Paul 2018).

Burke (2018), in contrast, has a better grasp of the politics underpinning energy democracy, arguing that this constitutes a "counter-narrative" seeking to contest hegemonic neoliberal discourses of energy transition. Similarly, Hess (2018) approaches energy democracy as a discursive tool for forging new coalitions in pursuit of sustainability transitions, positioning energy democracy as "a frame that helps to connect diverse goals and strategies under one umbrella." (p.179) And Paul (2018) approaches energy democracy as "an alternative discourse and spatial imagination for the energy sector" that has emerged out of a history of struggle particular to the German context, capable of "uniting demands for social justice, democratic accountability and environmental sustainability" (p.8). Yet Burke and Stephens (2017) acknowledge that energy democracy is something more than a narrative, discourse or frame, turning our attention to the diverse suite of policies advanced by energy democracy proponents. Here, the authors conclude that more focused in-depth attention on specific policy instruments, drawing on "direct engagement with energy democracy advocates, practitioners and organisations" is an essential research agenda going forward (p.45). My thesis contributes to the emerging body of scholarly literature on energy democracy by filling this gap, deploying a scholar-activist methodology premised upon this form of direct engagement in order to explore some of the specific policies and practices being instantiated at the urban scale.

As part of this contribution, I seek to distinguish two ways of conceiving and enacting energy democracy. Here, my thinking develops a distinction already emerging within the literature. Burke and Stephens (2018) contend that activists use the concept of energy democracy in two ways: firstly, to refer to "a mode of governance" and, secondly, as "a rhetorical claim for social and environmental justice" (p.81). Similarly, Becker and Naumann (2017) distinguish between two interconnected ways of understanding energy democracy: firstly, as "efforts to institutionalise democratic principles in lasting organisations" within the energy sector and, secondly, "as a political call to open up energy systems to

participation." (P.4) In the remainder of this chapter, I seek to clarify and build upon Burke and Stephens (2018) and Becker and Naumann (2017), putting their ideas into conversation with a range of other interlocutors in order to establish the foundations for the two-way conceptualisation of energy democracy I wish to defend in the thesis.

2.7 Energy democracy as transforming the institutions of energy governance

According to perhaps the most common way of thinking about energy democracy, this is an idea concerned with the kinds of principles, institutions and modes of governance embedded within the energy system. In particular, this way of thinking about energy democracy centres on enhancing the participation of energy users and workers in the governance, management and ownership of the energy system. The point, on this approach, is not to develop a universal model for participation to be institutionalised in all contexts but, rather, to advance "variegated forms of collective organisation and ownership as an instrument for achieving socio-environmental transformations" (Becker and Naumann 2017). Thus, proponents of this approach to energy democracy advocate a plurality of different institutional forms, ranging from nationalisation enacted by central government to municipal energy schemes via local government and forms of non-state "community energy schemes" such as energy co-operatives (Angel 2016).

Chapters 4 and 5 of the thesis will focus upon endeavours to transform the institutions of energy governance via the medium of municipal energy. As alluded to in Chapter 1, the involvement of municipal institutions in the energy sector (alongside other services and utilities such as water and waste-management) is an increasing trend in many parts of the world (Kishimoto and Petitjean 2017). This wave of energy re-municipalisations has been explored in a number of scholarly interventions, largely focused on the German context, in which the growth of municipal energy has been particularly expansive (Cumbers 2013; Becker, Beveridge, and Naumann 2015a, 2015b; Becker and Naumann 2017; Angel 2017; Paul 2018; Routledge, Cumbers, and Derickson 2018). These schemes promise the reconfiguration of institutions of energy governance on two

levels. Firstly, and most obviously, they mark a transferral of ownership and control from the private to the public sector (via the local state) and, in this sense, have been seen as challenging neoliberal orthodoxy. Secondly, some proponents of municipal energy argue not only for a return to local state control but, moreover, for the democratisation of the local state institutions in question. On this latter question, activist coalitions have argued for the creation of municipal energy institutions that involve energy users and workers centrally in their decision-making via forms of participatory democratic control such as elected governing boards or advisory general assemblies (Becker, Beveridge, and Naumann 2015b; Angel 2017; Routledge, Cumbers, and Derickson 2018).

In this sense, this agenda for democratic municipal energy enacts new thinking on public ownership and the commons. Andy Cumbers (2013) makes the case for a new approach to public ownership that rejects the tendencies towards top-down paternalism of the post-war 1945 settlement and, instead, seeks to develop economic democracy by decentralising power and control as far as possible to citizens and workers. In making this argument, Cumbers draws upon a sympathetic critique of autonomist thought on the commons (Cumbers 2013, 2015). The concept of the commons is becoming an important motif within contemporary emancipatory politics across the world, deployed as a discursive signifier for new practices of collective control, created in opposition to capitalist enclosure and accumulation by dispossession (Ostrom 1990; Bakker 2007; Federici 2012a). While it is, perhaps, commonly managed land that most readily comes to mind here, the practice of commoning – the active process whereby commons are made and remade – is extended to the decommodification and collectivisation of a range of processes necessary for the sustenance of social life, from the digital world to caring labour, water to energy (Chatterton 2010; Federici 2012a). Autonomous marxists such as Federici (2012a), Holloway (2002, 2010), Hardt and Negri (2009) and De Angelis (2017) argue that commoning takes place in opposition to both capital and state. Thus, Federici writes that the resurrection of interest in the commons emerges out of "the demise of this latest model of revolution that for decades has sapped the efforts of radical movements to build an alternative to capitalism." (2012a, 138)

As influential as this line of thought has proven, the autonomist conception of the commons has come under attack in recent years. For Harvey (2012), the autonomist project is too localised, fetishising the micro-scale initiative while having no answer to the need for processes of co-ordination and redistribution – processes that, for Harvey, must be undertaken by the institutions of the state. As an alternative, Harvey advances a strategy for commoning premised on pressuring the state “to supply more and more in the way of public goods for public purposes”, while at the same time organising to “appropriate, use and supplement those goods” in ways that render state provision as subject to the participatory and de-commodifying ethos of the commons (2012, 88). Siding with Harvey, Cumbers (2012; 2015) argues that the task must be commoning “in-against-and-beyond the state”, which, in practice, amounts to initiatives that seek to “reclaim” the state through rendering it as subject to participatory control. Angel (2017) notes the affinities between this latter approach to the commons and endeavours to create democratic municipal energy institutions. We might, in short, read endeavours to create democratic municipal energy schemes that transfer power and control from state bureaucrats towards energy users and workers, as endeavours towards the commoning of energy via the local state (see also: Routledge, Cumbers, and Derickson 2018).

2.8 Post-politics and the challenge to institutional politics

In order to explore the above approach to energy democracy in more depth, it will be interesting to put the aforementioned ideas around the commons, the state and institutional transformation into conversation with recent debates around “post-politics” – debates already alluded to in the introduction to the chapter. For many of the key protagonists within the post-politics literature are highly critical of this kind of institutional politics (see for instance: Rancière 1999; Swyngedouw 2014; Merrifield 2014; Dikeç and Swyngedouw 2017).

Over the past decade, Swyngedouw – drawing on a range of influential political theorists, most notably Chantal Mouffe, Jacques Rancière and Slavoj Žižek – has helped situate the concept of post-politics as an important focus of critical geographical enquiry (Swyngedouw 2009, 2010, 2014; Wilson and

Swyngedouw 2014; Swyngedouw and Wilson 2014; Dikeç and Swyngedouw 2017). This conceptual lens is deployed in an attempt to theorise the apparently overwhelming triumph of neoliberalism (particularly within the global north). Theorists of post-politics argue that a form of technocratic managerial governance has become hegemonic, operating within an unchallenged framework of free market capitalism and representative democracy. There is, within this framework, no room for "agonistic" discussion of alternative socio-ecological trajectories.

Yet, for Mouffe (2005), no social order can eliminate the possibility of antagonistic passions bubbling up from below the surface. On this Mouffeian perspective, the present era is post-political because the institutional architecture of capitalist liberal democracy offers no outlet for this antagonism to be expressed. Instead, the antagonism that on this perspective defines "the political" emerges only through violent fundamentalisms and disturbing xenophobic outbursts, as we see now, in the form of growing right-wing populist sentiments (Mouffe 2018).

While previous social orders were explicit in their hierarchical distinctions between the rulers and the ruled, post-politics is said to deny such divisions, using the veneer of "consensus" to argue that all views are accounted for (Rancière 1999). Yet, for Rancière (1999, 2001) there is always "a part with no part": those given no role within the political community. This inequality is naturalised through what Rancière terms the "police order", which produces a specific "partition of the sensible": a particular demarcation of "those that one sees and those that one does not see" (1999, 22); those who are listened to as speaking political beings and those who are to be treated as animals, incapable of nothing more than making "noise signalling pleasure or pain" (1999, 23). Post-politics creates a cloak of legitimacy via hollow citizen-participation and consensual agreement between public, private and third sector partners. But in reality "political" questions are resolved by experts and markets (Swyngedouw 2010); there remains a vast swathe of the population who are dehumanised and rendered invisible, whose voices are not heard, leaving no room for genuine dissensus (Rancière 1999). Accordingly, widespread disillusionment with

traditional forms of democratic engagement permeates what are supposed to be shining beacons of liberal democratic hope (Crouch 2004; Merrifield 2014). And attempts to challenge the prevailing social order are funnelled off into single-issue silos, leaving the fundamentals of this order intact (Žižek 1999).

Theories of post-politics have attracted a number of criticisms. Sophie Bond et al. (2015) argue that designating some practices and processes as properly political and others as inevitably co-opted or reinforcing of the police order is overly simplistic. For Loftus (2014), there is a risk here that scholars end up theorising the political in ways detached from historically and geographically specific experiences and practices. Mann and Wainwright (2018) contend that climate change is reconfiguring dominant modalities of politics, but that this need not imply the demise of politics. Indeed, a frequent criticism of the post-politics literature is that it presents an overly closed and pessimistic account, overlooking the vast array of struggles that call techno-managerial market governance into question (McCarthy 2013; Chatterton, Featherstone, and Routledge 2013; Larner 2014; Bond, Diprose, and McGregor 2015).

Addressing this latter critique, Swyngedouw and his collaborator Japhy Wilson (2014) argue that this overlooks the central tenet of the post-politics literature: the commitment to a post-foundationalist ontology. According to this, all political orders are without an essential grounding or determining foundation such as the Hobbesian state of nature, or the “economic base” of crude Marxisms (Marchart 2007). As such, possibilities for transformative rupture are always bubbling below the surface of the police order (Wilson and Swyngedouw 2014). Indeed, Swyngedouw’s more recent work, written in response to such criticisms, finds hope in the wave of uprisings sweeping across the globe in 2011, reading the urban rebellions of Tahrir, Madrid, Wall Street and elsewhere through Rancière (Wilson and Swyngedouw 2014; Swyngedouw 2014; Swyngedouw and Wilson 2014). For Rancière (1999), politics is a specific form of action undertaken by the part with no part, occurring when they disrupt the police order and demonstrate its contingency by temporarily instituting a new partition of the sensible, in which the absolute equality of all as speaking beings is upheld. Thus, in the terms of Mustafa Dikeç, Rancièrian politics is “ruptural and inaugurative” (2013, 78) It

is about disturbing prevailing ideas of who speaks and who is visible, which happens when the part with no part “allude to a world where their arguments count” by “bring[ing] this world into the current world.” (Rancière 2001, Thesis 8, n.p.).

Along such lines, Swyngedouw understands the events of 2011 as dramatic assertions of equality by those previously rendered invisible and inaudible, with temporary experiments in grassroots democracy shattering the myth of liberal democracy as the only form of socio-ecological organisation. Occupations “ended up without particular demands addressed to the elites, to a Master. In their refusal to express specific grievances, they demanded everything, nothing less than the transformation of the instituted order.” (Swyngedouw 2014, 172) Thus, following Žižek (2012), specific concerns leaped towards the universal, crystallising a revolutionary desire for wholesale upheaval.

For Dikeç and Swyngedouw (2017) and Merrifield (2014), these fleeting occupations of urban space offered the promise of the return of the political. Instead of the “institutionalised politics” that Dikeç and Swyngedouw (2017) associate with the traditional “social movement” – which is said to focus on the ways that established, formalised groups might impact upon urban policy – the potential of 2011 is said to have resided in the “politics of the ‘extraordinary’” (Kalyvas 2008) enacted by informal mobilisations of the urban dispossessed. The “insurgent practises” of the latter are staged away from “the theatres (council rooms, parliaments, committee meetings, etc.) of everyday urban governance” (Dikeç and Swyngedouw 2017, 7). The day of the urban *social* movement, it is argued, has passed. Instead it is said to be the urban *political* movement – defined by an “extraordinary” politics enacted at a distance to formal political institutions – that “increasingly define[s] our contemporary urban condition” (Dikeç and Swyngedouw 2017, 15).

Accordingly, we see how some of the key claims made within the post-politics literature come into tension with an approach to energy democracy premised upon the transformation or commoning of local state institutions. At the heart of this tension, I suggest, is the thorny question of the state and its role within emancipatory social change. For Swyngedouw and Wilson (2014), “the

state has become (and arguably has always been) just another instance of the private alongside private capital and private individuals.” (P.307) In contrast, while Harvey (2012) and Cumbers (2013, 2015) do not deny the state’s role in the accumulation of capital, the institutions of the state remain open as terrains of struggle. To navigate the debate that ensues, a more considered theorisation of the state is necessary. It is to this task that I now turn.

2.9 Theorising the state

The question of how the state may or may not be enrolled in emancipatory politics has animated debates for centuries. These debates have recently been posed sharply in the wake of the urban rebellions of 2011. As alluded to above, in many instances, those present in temporary occupations of urban centres eschewed demands on the state in favour of a prefigurative politics that prioritised the transformation of socio-spatial relations in the present moment through experiments in grassroots self-governance (Swyngedouw 2014). In this sense, these rebellions drew on a tradition of anarchist-inspired organising, influenced by a range of sources from the revolutions of 1968 through to the Zapatista uprising in Chiapas and the global justice movement of the 1990s (Graeber 2013). A well-rehearsed criticism of the kind of prefigurative politics adopted by many in 2011, is that it is unable to create durable sources of political expression capable of "reorganising the entirety of social life" (Žižek 2012, 82). Indeed it is interesting that in the wake of 2011, we have seen the proliferation of left electoral projects, including in both of the contexts – the UK and Spain – attended to in this thesis (see Chapter 1).

It is easy to frame the subsequent debate around the state in dichotomous terms: either we work "inside" or "outside" the state; we are either for the state, or against it. The problem with these ways of staging the question is that the state tends to be reified as a thing, actor, or subject that is separate from the rest of society. Yet the state is not some “thing” that we can choose to work with or ignore, to defend or oppose. There is no unified or singular actor to point to when we talk about "the state" (Abrams 1988). Rather, there are distinct institutions that we identify as somehow constituting “the state”, with each of these

institutions nothing more than a series of practices enrolled in various socio-ecological processes (Angel and Loftus 2017). "The state", then, is an "imagined collective actor": while no such actor exists materially, the imaginary idea of this actor has very material impacts, with the question of where the line between "the state" and "society" is drawn a contingent question with important political implications (Mitchell 1991). Through his ethnography of the local state in North India, Gupta (1995) shows that the boundaries between the state and everyday life are deeply blurred: "[w]hen one analyses the manner in which villages and officials encounter the state, it becomes clear that it must be conceptualised in terms far more decentralised and disaggregated than has been the case so far" (P.392), with the separation of state and civil society emerging from "the imperialism of the Western conceptual apparatus" (P.393).

Indeed, for Antonio Gramsci (1971), the institutions of the state and civil society – faith groups, voluntary associations, schools, the media, trade unions and so-on – are dialectically “woven together” within the so-called “integral state”, existing as interconnected moments within a shared set of dynamic and fluid social relations (Gramsci 1971; Ekers and Loftus 2008; Thomas 2009). Gramsci's dialectical account helps us to see beyond cruder marxian theorisations of the state as an instrument of capital or the executive committee of the bourgeoisie which, again, end up reifying the state as a "thing" captured by one class or another. The point is not to deny that the capitalist state must undertake certain “basic functions” – from the coercive enforcement of private property rights, to the generation of consent to exploitation – in order to sustain the reproduction of capitalist relations (Harvey 1976; Robertson and Wainwright 2013; Parenti 2015). Nor should we deny the state's implication in other forms of violence and domination, from colonial expansion (J. C. Scott 1998) to the policing of black and brown bodies and borders (De Genova 2015) and unjust gendered divisions of labour (Federici 2012b).

However, drawing on Gramsci alongside Foucault and Poulantzas, Bob Jessop (1982, 1990, 2007a) has sought to theorise the state in a way that acknowledges its enrolment within multiple relations of domination while avoiding reifying it as “the enemy”. Jessop argues that the state is “strategically

selective”, which is to say that its “structure and modus operandi are more open to some types of political strategy than others” (1990, p.260). This is because the balance of social forces that constitute the state is always uneven, rendering some forces as dominant over others. Yet because the processes that constitute the state can be intervened in, the balance of social forces within the state is always contingent, historically and geographically. Thus, while the capitalist state will inevitably favour political strategies amenable to the reproduction of capitalist relations, it is no mere instrument of capital. The interests of managers and employees within the state are in flux and in tension, while struggle from outside the state’s apparatus can compel state institutions to be selective in subversive ways, shifting the balance of forces.

While in some ways sympathetic to this account, Joe Painter (2006) argues that Jessop “pays relatively little explicit attention to questions of agency, action and practice, often invoking an abstract notion of ‘social forces’ to explain change” (P.762). The worry here is that Jessop affords too little place for the contingencies of agency and everyday practices within state institutions. In contrast, Painter focuses on what he terms the “prosaic geographies of stateness”. Painter calls attention to the saturation of everyday life by what he terms “state effects”, with everything from giving birth to shopping, travelling, and dying enrolling us in relations to state institutions and practices in ways that can easily be taken for granted. Painter writes:

When I apply for a passport identifying me as a citizen of a state, the passport, the office and the officials that issue it, and the border post through which it allows me to pass all exist. However, the state in whose name they function is neither an aggregation of these elements, nor a separate reality behind them, but a symbolic resource on which they draw to produce their effects. (P.758)

All that exists, materially, are the prosaic practices of everyday life in which both state officials and “citizens” partake. And when we focus on the prosaics of state effects, Painter suggests that a highly chaotic, contingent and heterogeneous picture emerges.

The focus on prosaics helpfully casts our attention on the everyday practices that Jessop seems to overlook. Yet just as Painter argues that Jessop

over-emphasises structure over agency, equally we might criticise Painter for overlooking the role of processes reaching beyond the immediate. There is no sense, in Painter's approach, of the ways in which prosaic practices are enmeshed within broader processes such as the accumulation of capital or colonial expansion.

At this point, I want to return to the open dialectical approach outlined previously in the chapter. My contention is that the debate between Painter and Jessop – and between poststructuralist and marxist theories of the state more broadly – calls for an open dialectical resolution. We must avoid positing encompassing processes determining state effects, leaving no role for everyday agency. Yet equally we must avoid an ahistorical blindness to the ways in which the prosaic practices that constitute the state are themselves shaped by spatially and temporally extended processes. The point is to recognise a two-way co-evolutionary dialectic between practices and processes, approaching the prosaic practices of those cast as "inside" and "outside" of state institutions as both constitutive of and constituted by broader processes such as the circulation and accumulation of capital. The result is a nuanced and relational understanding of "the state" that avoids at once reification, crude structuralism, or a retreat into total disorder.

The political implication to be interrogated in subsequent chapters of the thesis is that the state emerges as a productive terrain of struggle. If the broader processes that constitute the state are, in part, made and remade through everyday practices, then possibilities remain open for the latter to prise open "slippages, openings, and contradictions" (Hart 2017, 375). That said, because these practices are themselves shaped by exploitative and oppressive processes, endeavours towards emancipatory change oriented around state effects will likely be frustrated. Yet there is no inevitability here: Swyngedouw and others who write off the state as nothing more than an instantiation of private capital (Swyngedouw and Wilson 2014, 307) offer a decidedly simplistic account. On the open dialectical perspective, while attempts to common the state, for instance through democratic municipal energy campaigns, certainly have the odds stacked

against them, the possibility remains open that the back-and-forth of struggle will yield hopeful gains.

As such, the pursuit of energy democracy via institutional transformation remains a fruitful area of enquiry for the thesis. Chapters 4 and 5 will explore this approach to energy democracy, focusing on municipal energy initiatives as endeavours to democratise energy through the transformation or commoning of municipal institutions. In particular, drawing on the work of marxist-feminist theorist Kathi Weeks (2011), I will argue that municipal energy can be understood as a “utopian demand”.

In her insightful recent attempts to develop a post-work feminist perspective, Weeks (2011) analyses the ways in which the demand for wages for housework was articulated in the women’s movement of the 1970s to draw conclusions around the politics of demands more generally. In doing so, she deploys the concept of the “utopian demand”. Weeks proposes that utopian demands are premised upon specific reforms that, while possible within existing social relations, simultaneously “look for a way out” (2011, 220). The point is not that utopian demands should appear “realistic” within dominant ideological constraints, but, rather, that they “should be recognised as credible within current trends and not just a rant or wishful thinking” (221). Yet the political stakes of utopian demands exceed their specific content. Epistemologically, they inform new critiques of dominant relations, denaturalising and demystifying these, while simultaneously expanding the political imagination to inspire thought and hope about radical alternatives. Ontologically, utopian demands open new terrains of struggle, lead onto the articulation of new demands and build power. Understood as such, the utopian demand portends one means of engaging with the state in a way that refuses its reification. Municipal energy initiatives, I will later contend, can be understood as demands for immediate reforms to the energy system that open epistemological and ontological possibilities for further radical changes, including to the form and function of the state itself.

There seems to be an affinity here with the argument I have made elsewhere (Angel 2017), according to which energy democracy calls for a strategic

orientation that is at once in-against-and-beyond the state. As well as drawing on Cumbers' (2015) approach to commoning in-against-and-beyond the state alluded to above, my previous work on the state returns to the ideas of the London Edinburgh Weekend Return Group, a working group of the Conference of Socialist Economists, whose 1980 pamphlet first coined the notion of working "in-and-against the state". The argument in this pamphlet, put briefly, was that those working within state institutions such as teachers and councillors can, through their everyday practices within these institutions, work against the relations of domination that constitute the capitalist state and begin to transform the state relation over time (London Edinburgh Weekend Return Group 1980).

Putting the perspectives of Cumbers (2015) and the London Edinburgh Weekend Return Group (1980) into conversation with experiences of a campaign for energy re-municipalisation in Berlin, I previously argued that this campaign could be read as working in-against-and-beyond the state (Angel 2017). This was a campaign to extend the local state's role in urban energy provision, thus working within the state. Yet the campaign, I argued, owing to its desire to incorporate participatory democracy within the state, pursued the reconfiguration of the state relation, hence working against the state. Where the campaign encountered problems, I suggested, was its de-prioritisation of political praxis orientated beyond state institutions, for instance via insufficient attention to more prefigurative questions of the quality of relations internal to the campaign group itself. Thus, my contention here was that approaching energy democracy as a project that requires working in-against-and-beyond the state might be productive. This suggestion will be returned to and discussed further in the conclusion to the thesis.

2.10 Energy democracy as expanding energy agency

If, then, one influential approach to energy democracy foregrounds the transformation of political institutions, what of the second approach to be distinguished in the thesis? Here, the thinking of both Burke and Stephens (2018) and Becker and Naumann (2017) seems less clear. For the former, this pertains to claims towards social and environmental justice. Yet what specific

kinds of social and environmental justice claims warrant an energy democracy understanding is left ambiguous. Becker and Naumann have a little more to say in this regard. Citing recent contributions to the debates around post-politics discussed above, they sketch an understanding of democracy as a specific form of political action that forces a rupture in existing relations of domination through performances of equality whereby people "claim their rights" in ways that expose and challenge pre-existing inequalities (2017, 4).

This represents a refreshingly different take on democracy to that explored thus far, and is a helpful starting point for crafting alternative approaches to energy democracy. However, Becker and Naumann's argument could be developed further in two ways. Firstly, there is a need for some increased conceptual clarity. What kind of participation is being incited? What does it mean for people to "claim their rights"? Which specific people are we talking about? And what kind of political actions might have this kind of ruptural effect?

Second, the ways in which this understanding of democracy translates to the energy sector remain unclear. On this question, Becker and Naumann write:

Applied to the realm of energy systems, this thinking would imply claims to energy access, the right to energy (Walker 2015) and issues of energy justice (Bickerstaff, Walker, and Bulkeley 2013). (P.4)

Yet as the papers cited here on the right to energy and energy justice acknowledge, these concepts are themselves defined openly, and are used to articulate an array of diverging political claims with varying degrees of transformative or ruptural aspiration or potential. The right to energy, for instance, has been adopted by a number of dominant political institutions from the UN through to multiple nation states (Tully 2006). Claims towards the right to energy, then, in no sense guarantee the kind of democratising potential that Becker and Naumann seek.

To develop this account further, I return to the ideas of Rancière, one of the key interlocutors cited (yet not discussed in detail) by Becker and Naumann. As noted previously, the concept of the "partition of the sensible" is at the heart of Rancière's philosophy, the claim being that all social orders render some subjects

visible and audible and others not, with the latter treated as mere animals given no part within the political community. The emerging partition of the sensible divides society along hierarchical lines, allocating roles to people, distinguishing between those who govern and those who obey. It also shapes the ways in which the rest of the world is seen, heard and understood, for instance by demarcating some issues as public and some as private, by reifying identities such as “woman” or “proletarian” as innate and essential, and by imposing spatial hierarchies according to which each “part” in society is assigned a particular “place” (Dikeç 2012).

Rancière (2009) notes that at previous historical moments, divisions between those who rule and those who obey have been legitimised through claims towards “divine rights” and natural superiority. With such ideas no longer holding sway in much of the world, the claim underpinning contemporary liberal democracies is that “representatives” should be obeyed as they are elected by the rest of us to enact the common good. What ensues, for Rancière (2009), is a historically specific partition of the sensible in which the mass of the population are given a recognised stake in certain matters designated as of “public” concern, with other matters demarcated as “private” and, hence, to be presided over by a minority of representatives, officials, experts and capitalists. Governments, according to Rancière (2009, 44), “tend to shrink this public sphere, making it into its own private affair and, in so doing, relegating the inventions and sites of intervention of non-State actors to the private domain.”

Democracy, in turn, “is a process of struggle against this privatisation, the process of enlarging this [public] sphere.” (2009, 44) The protagonists of democracy are those whose political agency is not recognised with regards to a certain issue of “private” concern – the “part with no part” in Rancière’s terms. The goal of enlarging the public sphere is emphatically not, on this account, about increasing the state’s role in social life. Rather, it is about those given no part in political life claiming recognition as “equals and as political subjects” (2009, 44) and, thereby, expanding who gets to participate on the “public” stage. And it is about rendering spaces, institutions and relations previously thought of as “private” and hence, the exclusive domain of a minority of representatives,

officials, experts or wealth-owners, as spaces, institutions and relations that all social "parts" have a recognised stake in and, thus, can claim agency over.

In sum, democracy for Rancière is about those excluded from private spaces, relations and institutions taking contestatory action to claim agency within these spaces, relations and institutions, thereby rendering these as matters of public concern. How, then, might this distinctive approach to democracy translate around questions of energy? A departure point here, is an understanding of energy as a private matter in the sense discussed by Rancière, i.e. as a matter in which a minority of experts and representatives have agency, with the majority of people denied this. This is a point stressed by Mitchell (2011). And, further, it is a claim returned to and interrogated empirically in Chapter 6 of the thesis.

If we accept, for the time being, that energy is a private matter in this way, then the question for energy democracy – when understood in this secondary Rancièreian sense – is how energy might be pulled into the public sphere or, put differently, how those currently given no recognised role within matters of energy may claim agency in this regard. It is for this reason that I refer to this secondary understanding of energy democracy as being concerned with "expanding energy agency". How, then, might this approach to energy democracy be enacted? How might those given no part in the energy system claim their legitimate stake? Part of the argument of the thesis, is that this approach to energy democracy can be engendered through a more "everyday" approach to energy. To build the theoretical foundations for this contention, I now turn to the body of theoretical literature on the politics of everyday life.

2.11 The politics of everyday life

The "everyday" has long been conceived as a vital terrain of critical urban theory and praxis. For Lefebvre, emancipatory possibilities are always imminent within the alienation of everyday life under capitalist urbanisation (Lefebvre 1968, 2014). Building on Lefebvre, Ruddick et al. (2017) have recently made the case for what they term "a social ontology of the urban" that emphasises the role of everyday life in producing urban space and its "constitutive outsides". Ruddick et al. argue

that struggles over the production of space begin with processes of subjectivation, emphasising that it is in the fraught contestations of everyday life that subjects, and hence the openings and closures for radical politics, are made and remade. Indeed, for Chatterton and Pickerill (2010, 488), the everyday is “the terrain where our politics are fought for and worked at... Just as capitalist social relations are reproduced at an everyday level, so too ordinary everyday practices can be generative of anti- and post-capitalisms.” For if capital, as Marx illuminates, is a social relation, post-capitalism need not be a future post-revolutionary trajectory but, rather, can be rethought as a quotidian set of practices that forge different non-capitalist relations in the present moment.

Thus, everyday life constitutes a terrain of both alienation and resistance, a perspective that can be further enriched through materialist-feminist theorising on social reproduction, understood broadly as the processes necessary for sustaining life (Katz 2001; Mitchell, Marston, and Katz 2004; Federici 2012b; Meehan and Strauss 2015). The starting point here is the inadequacies of Marx’s focus on waged work as the exclusive site of value creation. It is the unwaged “women’s work” (and as later theorists have stressed, racialised work) (Mitchell, Marston, and Katz 2004; Federici 2012b; Meehan and Strauss 2015) of social reproduction that produces labour power as a commodity. Thus, capitalism relies upon a gendered and racialised division of labour that artificially separates remunerated “productive” labour from unremunerated “reproductive” labour, blinding us to the ways in which production and reproduction are dialectically related (Mitchell, Marston, and Katz 2004; Meehan and Strauss 2015). For Mitchell et al. (2015, 185) social reproduction has “political power and potential” because “[i]ts practices are critical in the Lefebvrian sense – the chance for rupture, and with it the possibility that they could be done differently, that things, social conditions, and relationships could be otherwise is immanent to them.”

Indeed, Loftus (2012) makes the case for what he terms an “everyday environmentalism” grounded in the “conditions of possibility” immanent within social reproduction. Loftus argues that it is through our daily reproductive practices that the socio-ecological processes of the city are constituted. Thus, it is

through our everyday sensuous interactions with the urban environment that these processes can be understood and, ultimately, might begin to be transformed. At the heart of this argument is Gramsci's contention that common sense understandings of the world are embedded in material practices. And within the contradictions of common sense lies a kernel of "good sense": a basis for understanding the world in ways fitting for its transformation, emerging out of the quotidian practices of daily life (Gramsci 1971). Arguing as such, Loftus suggests that through the reproductive practices necessary to access potable water for themselves and their families, women within the informal settlements of Durban, South Africa, are forced to confront directly the violence of the commoditisation of the means of reproduction. Here, for Loftus, arise "the conditions of possibility" that enable certain "situated knowledges" to be achieved as an outcome of struggle (Hartsock 1983a; Harding 1986; Haraway 1988). These emerging forms of fragmented "cyborg consciousness" (Haraway 1991) can allow the processes that produce the objectified world of "things" within the urban waterscape to be grasped, giving rise to new subjectivities and, in turn, forms of struggle.

Loftus's account is one of many that locate political possibility within the everyday lives of the urban poor living in cities of the "global south". Post-colonial urban theory tends to foreground the agency of subaltern groups as constitutive of urban life, as opposed to the excess or result of overarching processes. AbdouMalik Simone (2004b, 2004a, 2009) vividly describes the improvised and provisional survival strategies adopted in the fight for "bare life" across a number of cities in Africa and Southeast Asia. For Simone, people themselves become infrastructure, with the reproduction of the city contingent upon informal social networks, which might prefigure more collective and caring forms of urban life. Or, the inconspicuous practices undertaken to meet basic needs in the absence of organisational power might constitute what Bayat (2000) calls "quiet encroachment", issuing in redistributive gains from elites.

With particular regard to the specificities of energy, numerous accounts have located political power in daily struggles around electricity metering and disconnections (Baptista 2015; Silver 2015; Pilo 2017). Particularly prominent

here are experiences within South African townships, out of which militant movements such as the Soweto Electricity Crisis Committee have emerged, politicising already-ubiquitous practices of illegal connections and non-payment (Naidoo and Veriava 2009; Bond and Ngwane 2010). Recent calls to "provincialise" urban theory encourage us to ask whether experiences within "northern" cities might benefit from being understood through theory developed out of "southern" urban contexts (Robinson 2006; Roy 2009; Parnell and Robinson 2012; Lawhon, Ernston, and Silver 2012) The intention here is ardently not to elide historical and geographical specificity, with the north/south distinction a product of colonial capitalist histories (and presents) of violence and dispossession that must remain at the forefront of our theory-making. In line with the open dialectical perspective of the thesis inspired by Hart's method of relational comparison, rather than reading the call to "provincialise" urban theory or to "see from the south" as an imperative to simply apply theory developed in one rigidly demarcated context to another, these provocations are better read as inciting us to trace shared processes and differences of articulation across a fuller range of historical geographies (see Chapter 3). Thus, a question raised in the thesis, particularly Chapter 6, is whether this kind of relational comparison might be drawn between the various southern urban contexts theorised in the literature on everyday energy struggles, and the struggles in London and Barcelona that I explore.

Returning to the question of energy democracy in the Rancièrian sense discussed in Section 2.10, a hypothesis to be explored in the thesis (in particular, Chapter 6) is that it is through more "everyday" energy struggles, particularly those spilling out of the daily reproductive practices entailed to keep one's home heated and lit, that agency within the privatised realm of energy might be reconfigured. For in each of the variegated approaches to everyday life explored here, the suggestion is raised that everyday life constitutes a terrain of struggle in which forms of consciousness, subjectivity and agency are produced, contested and remade. Perhaps, then, it is through daily reproductive interactions with the energy system, that those currently excluded from matters of energy might be inspired to challenge this dominant partition of the sensible and drag energy into

the public sphere. This, anyway, is part of the argument made in Chapter 6, with particular reference to the struggles of the Catalan Alianza Contra la Pobreza Energética.

2.12 Conclusion

This chapter has attempted to frame the argument to be developed within the thesis pertaining to the ways in which energy democracy might be conceptualised and enacted. To do so, I have explored a number of different bodies of literature, to establish the theoretical foundations on which my argument will be built. I began by addressing the ways in which energy might be theorised, using conversations between Malm (2016), Huber (2013) and Mitchell (2011) as an inroad into the debate between historical materialist and new materialist approaches. Here, I made the case for an open dialectical approach inspired by Hart (2017), which will provide the theoretical outlook underpinning much of the thesis, including the conceptualisation of both energy and the urban.

This established, I proceeded to address the question of energy democracy more directly. The remainder of the chapter proceeded to discuss and develop the distinction between two different approaches to energy democracy to be elaborated in the thesis. Firstly, I discussed an approach to energy democracy premised upon the transformation of institutions of energy governance, drawing on literatures around the commons, post-politics and the state to make the case for an open dialectics of the state. Second, I addressed the question of an alternative, agentic conceptualisation of energy democracy, putting the democratic theory of Rancière (2009) into conversation with theories of everyday life to hypothesise that possibilities for expanding energy agency might be excavated through daily reproductive struggles to keep one's home heated, fed and lit.

The chapter, then, has provided some preliminary ideas as to the various ways in which we might begin to think through and enact energy democracy. With these conceptual foundations established, it is to matters of methodology that I turn to in the next chapter.

3. Praxis, methodology, method

Becoming an academic to support social movements is akin to launching a space programme to develop a pen that writes upside down. At best, it is a circuitous route that is surely not the most efficient way of realising this goal. (Croteau 2005, 20)

3.1 Introduction

Despite the cautions advised by the sociologist David Croteau in the comment above, my decision to embark upon a doctoral research project was largely driven by the kind of "circuitous" logic he warns against. In 2014, I was deeply engaged in the UK grassroots climate justice movement, but had for a few years been paying my rent through a series of jobs in environmental NGOs and think-tanks that I had largely felt politically frustrated and compromised within. Perhaps, I thought, returning to the university might afford opportunities for a "day job" more intimately attuned to the radical environmental politics I was committed to. What if, I wondered, I could engage in an academic research project that would allow me to devote more time to supporting the activist initiatives I valued?

Thus, one year later, in 2015, I found myself beginning a PhD largely motivated by these activist aspirations. More specifically (as described in Chapter 1) I had previously been party to a series of informal conversations among activists around the promise of "energy democracy" as a new imaginary of struggle, and thus perceived a degree of utility in a research project seeking to develop this agenda further. And just a month or so after beginning my doctoral research, I became involved in discussions with other activists around establishing an energy democracy based intervention in London – discussions that soon led to the formation of Switched On London. The timing seemed perfect, and I soon hatched a plan to devote my PhD project to this campaign, the hope being that an ethnographic study would allow me to devote significant energy to the activism I wanted to do. It was an exciting time.

Yet, after three months of intensive work helping to establish the campaign infrastructure necessary for Switched On London to launch, anxieties began to

set in. What would happen, I wondered, if this new campaign fizzled out? What, then, would become of my research project? I would have nothing to write about! As these worries surfaced and crystallised, I began to feel ashamed. For it seemed that my interest in Switched On London was increasingly becoming oriented around its importance for my research. Had I really found myself, just three months into my PhD project, beginning to instrumentalise activism in pursuit of my own academic ends (Autonomous Geographies Collective 2010; Gillan and Pickerill 2012)? I began to panic. Devoting my PhD to this new campaign – an initiative that I felt extremely enthusiastic about – was too good an opportunity to pass up. Yet how could I leave behind my anxieties and begin to relate to the campaign in a more ethical and healthy way?

This is just one snapshot into the thorny terrain that my attempts to craft a scholar-activist approach have encountered. This chapter will dig into the complexities, frustrations, failures and hopeful possibilities of my endeavours to integrate "activist" and "academic" imperatives. I seek to achieve three goals. First, to outline and evaluate the distinctive approach to scholar-activism adopted in the thesis. Second, to discuss the rationale behind my comparative study and the particular modality of "relational comparison" (Hart 2017) adopted. And, finally, to explain the research methods deployed within my project and to explore the questions of positionality and power entailed. The chapter proceeds in four steps, with Sections 3.3, 3.4 and 3.5 corresponding to each of these goals in turn. I begin, in Section 3.2, by contextualising the scholar-activist approach adopted in the thesis within the rich body of literature on scholar-activism.

3.2 Varieties of scholar-activism

Scholar-activism is not a unified or cohesive approach but, rather, an umbrella term within which multiple variegated outlooks, methods and strategies sit together in tension. That said, scholar-activist approaches tend to imply a form of scholarship that seeks to pursue "activist" goals pertaining to emancipatory social change; and, simultaneously, a form of political praxis that is in some way integrated within scholarly research endeavours.

One departure point for this perspective is the rejection of the positivist pursuit of "impartial" scholarship and "objective" knowledge. Feminist and postcolonial interventions have helped foster a shared acknowledgement within the critical social sciences that all knowledge is produced within complex networks of power relations, which shape the ways in which we interpret and act in the world (Mohanty 1984; Harding 1986; McDowell 1992; England 2006). Our "vision" of the world is necessarily embodied, filtered through complex, "split" (Haraway 1988, 583) and situated (Hartsock 1983) subjectivities and knowledges. Accordingly, there is a need for a reflexive form of theory, in which scholars attempt to interrogate their own positionality and the ways in which this impacts upon the research process (England 1994; Falconer Al-Hindi and Kawabata 2002). All research is inescapably shaped through the ethical and political beliefs of the researcher, whether or not these are acknowledged.

A number of important interventions have stressed that an attention to individual positionality and reflexivity is inadequate without a simultaneous emphasis on the vitality of praxis and the question of how one's scholarly endeavours are informed by and contribute to collective political struggle (Nagar 2002; Peake 2016). Indeed, the past two decades have seen the rise of a form of scholarship that makes its activist intentions prominent in the very identity it adopts: scholar-activism. Paul Routledge (1996) and later, Jon Anderson (2002), made the case for a "third space" between activism and the academy: "the third space implies inappropriate(d) encounters between academia and activism where neither site, role, or representation holds sway, where one continually subverts the meaning of the other." (Routledge 1996, 400). Following in this vein, the scholar-activist tradition has continually strived to avoid reifying the academy on the one hand, and activism on the other. Instead, the hope has been to undo such binaries by pursuing scholarly endeavours that help support and strengthen activist attempts to change the world (Autonomous Geographies Collective 2010). Part of the motivation behind this approach is the desire to avoid exploitative and extractive dynamics whereby academics instrumentalise activist endeavours in order to further their own careers (Autonomous Geographies Collective 2010; Gillan and Pickerill 2012).

One question that scholar-activist endeavours portend, perhaps under-explored in the literature, is that of what precisely is meant by "activism". For the very concept of activism is, in fact, often questioned and complicated within the communities and networks that much of the scholar-activist literature is concerned with (Chatterton and Pickerill 2010). Chatterton (2006) and Chatterton and Pickerill (2010) offer notable exceptions in their willingness to engage with the critique of activism. Chatterton (2006) draws on an influential anonymous pamphlet which provokes the reader to "give up activism" (Anonymous 1999) – a pamphlet written in the aftermath of the June 18th 1999 "global day of action" called to coincide with the G8 summit in Cologne as part of the broader "global justice movement" (see: Routledge, Cumbers, and Nativel 2007; Cumbers, Routledge, and Nativel 2008; Routledge and Cumbers 2009). The problem identified here is the notion of the "activist" as "a specialist or an expert in social change" (Anonymous 1999, n.p.), with "activism" becoming something done by self-proclaimed "radicals", in abstraction from everyday life. This critique of activism – and the question of how activism is to be understood within this thesis – will be returned to soon.

Putting this question aside for the time being, several different strategies for fusing academic and activist goals are advanced in the literature, summarised in Table 1 below. Clearly, many of these strategies are interlinked, without sharp distinctions. None, moreover, are mutually exclusive. It is also worth noting that many scholars might deploy one or more of these strategies without explicitly adopting the identity of "scholar activist".

Table 1 Scholar-activist strategies

Scholar-activist strategy	What is entailed?
Participatory research	Activists are involved at various stages of the research process. This can include developing research questions, carrying out research, co-authoring publications and non-academic outputs, and co-presenting at conferences (see: mrs kinspaisby 2008; Kindon, Pain, and Kesby 2007; K. Mason, Brown, and Pickerill 2013; Wynne-Jones, North, and Routledge 2015).
Fieldwork-as-activism	Scholars design their fieldwork to incorporate active participation in activist initiatives, taking on any number of tasks deemed useful, in the same way that activists without scholarly commitments would. The emphasis here is on using the scholar's time in order to reproduce and support struggle (see: Autonomous Geographies Collective 2010; Chatterton, Featherstone, and Routledge 2013; Taylor 2014; Derickson and Routledge 2015; Halvorsen 2015).
Redirecting resources	Scholars seek to channel academic resources to activist initiatives, for instance by obtaining academic funding to be diverted into activism or by giving activists access to university meeting space, IT and printing facilities, libraries, and so-on (Derickson and Routledge 2015).
Struggles within the university	Scholars engage in struggles to transform the university, challenging the role of universities in reproducing relations of domination and exploitation and endeavouring to create more just and democratic educational environments (see: Castree and Sparke 2002; Autonomous Geographies Collective 2010; Halvorsen 2015; Mountz et al. 2015).
Informing activist strategy	Scholars aim to produce knowledge to inform strategic debates within activist initiatives, for instance around questions of demands, tactics and modes of organising. This can include (yet need not entail) producing non-academic outputs such as blog posts or briefings specifically tailored for

	activist audiences (see: Holloway 2002, 2010; Harvey 2012; Russell 2015; De Angelis 2017; Angel 2017).
Analysing the present conjuncture	Scholars aim to produce knowledge that helps activists to understand the circumstances and processes within which they are situated. For example, scholars may illuminate obstacles towards the changes pursued by activist initiatives (Derickson and Routledge 2015). Much critical scholarship oriented around understanding, in multiple various ways, the operations of power within social life, might be included in this category of scholarship. Again, scholars may opt to produce outputs tailored for activist audiences to convey their research accessibly.
Changing policy	Scholars aim to change government or corporate policy in directions that support activist ends. This can include producing research outputs aiming to influence policy-makers, or offering scholarly “expertise” to policy-makers in pursuit of particular reforms (see: Harvey 1974; Dorling and Shaw 2002).
Influencing public debate	Scholars become so-called “public intellectuals”, promoting activist goals through media interventions, appearances at “public” events and publications aimed at the so-called “general reader”. Obvious examples of this kind of scholar might include, for example, Stuart Hall, David Harvey and Jacqueline Rose.
Teaching	Scholars use their capacities as educators – both inside and outside of the university – to support the goals of activist initiatives.
Academic interventions	Scholars seek to cultivate social change through their academic contributions, acknowledging that academic debates provide one terrain of struggle in which hegemony is both produced and contested. This is recognised as an important modality of scholar-activist praxis in Pickerill (2008) and Autonomous Geographies Collective (2010).

One recent contribution to the literature on scholar-activism is Derickson and Routledge's (2015) proposal for a scholar-activist "politics of resourcefulness". The idea here is to craft a form of scholarship that pursues the provision of "resources" to activist initiatives as one core motivation. The authors distinguish three ways in which this politics of resourcefulness might be enacted: the redirection of academic resources (from time to fundraising to meeting space) from universities to activist endeavours; conducting research that answers questions that activist collaborators would like to see explored; and research projects that interrogate the ways in which effective activism is inhibited.

Derickson and Routledge also propose a specific method for developing research questions, referred to as "triangulation" (see Figure 3 below). Here, the positioning of current theoretical debates and intellectual questions at the top of the triangle is intended as an acknowledgement of the importance of critical academic pursuits as a route towards enhancing "conceptual space to challenge the increasingly narrow realm of possible futures." (p.2) Yet the proposal is that this should not be the sole criterion for developing research questions. Rather, research questions should consider whose interests are to be advanced: is, for instance, a question about the working conditions within a particular factory asked and discussed in a way that produces knowledge that will be of more use to the factory owners or the workers themselves? And, secondly, when devising research questions, we should consider the kind of topics that activist collaborators would like to see answered.

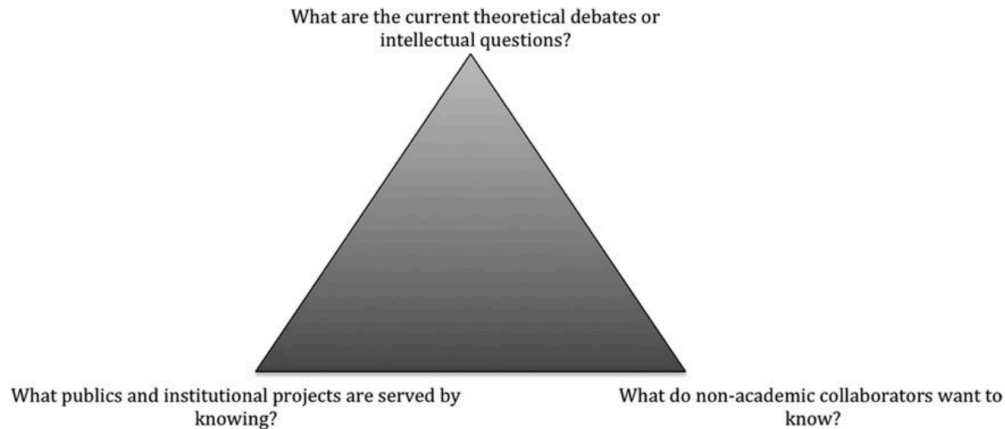


Figure 3 Scholar-activist “triangulation”.

Source: Derickson and Routledge (2015, 2).

It is interesting to explore the tensions between the perspective of scholar-activist resourcefulness and that of militant research, an approach that a number of recent geographical contributions have sought to reinvigorate. This is a tradition dating back to Marx’s 1880 workers’ inquiry, since enacted most prominently by the Italian Operaismo movements of the 1960s and ‘70s (Russell 2015; Halvorsen 2015). On Bert Russell’s account, militant research is undertaken by movement-participants, with the sole aim of “the augmentation and transformation of the movements of which they are part” (Russell 2015, 224). This, in sum, is a form of research oriented towards “understanding and changing collective praxis...the conscious and deliberate attempt to make movements *move* through a reflexive (dialectical, even?) critique of their own praxis” (Russell 2015, 223). For Russell, militant research avoids the “Ivory Tower syndrome” (Autonomous Geographies Collective 2010) that plagues scholar-activism by ridding itself of any interest in academic goals that depart from movement goals: “the ‘academic’ component is irrelevant precisely because militant research does not take the university as a referant.” (2015, p.223) Most movements will undertake some form of militant research, with participants inevitably reflecting upon movement praxis with the aim of enhancing its effectiveness. As such, while militant research may be undertaken by academic researchers, this emphatically need not be the case.

Because militant research is undertaken by those already embedded within struggles, the idea of a militant researcher “going native” and losing critical distance (see: Fuller 1999) makes no sense: the militant researcher is fully committed to the movement they act within and reflect upon and in this sense is very much partial, always an insider. This is not to say, though, that militant researchers should refrain from critiquing movement practices. For Sam Halvorsen (2015), militant research must be “against-and-beyond itself”, meaning a “constant struggle to overcome any form it takes” (p.467). In short, militant researchers should remain fully reflexive towards the contradictions and limitations of their endeavours, including both their own militant-research activities, as well as the activities of the broader movements within which they act.

I see two key areas of divergence between the perspectives of scholar-activist resourcefulness and militant research: one pertaining to the relationship to “academia”, and one pertaining to the relationship to “activism”. On the former question, while Derickson and Routledge maintain the political and epistemological value of academic enquiry, the militant research position, for Russell, rids itself of all interest in academic debate in favour of an exclusive focus on enhancing movement praxis. As for the latter question – the relationship to activism – the key distinction I would identify here is that while the militant research perspective seems interested only in the ways in which research can inform and enhance activist strategy, Derickson and Routledge are interested in a variety of ways in which researchers might “resource” activism. On the latter perspective, the production of knowledge in pursuit of strategic advances is one possible resource among many.

These tensions provide a productive basis for discussion of the scholar-activist approach developed in my own doctoral research project. The next section of the chapter turns to address this question, keeping in mind the debates above as a source of inspiration and friction, alongside which my own experiences and reflections will be brought into conversation.

3.3 Doing scholar-activism: from London to Barcelona

The scholar-activist orientation with which I began my research project was, principally, that defined in Table 1 above as "fieldwork-as-activism". My intention was to carry out a project that would allow me to devote time to participating in the activist initiatives I felt were politically valuable. In this sense, I began with a clear intention to "resource" activism in this specific way (Derickson and Routledge 2015). Thus, my initial plan was an ethnographic study of Switched On London, whereby I would collect "data" through reflections on my everyday participation as an activist in the campaign. Yet throughout the course of my project, my scholar-activist approach has evolved to incorporate an array of different strategies.

To explain this evolution, it will be useful to pick up where I left off in the introduction to this chapter: my struggle to base my research project around Switched On London while maintaining an ethical and healthy relationship to this campaign. My predicament, put crudely, was whether my experiences within Switched On London would constitute a sufficient empirical basis for a doctoral project. The way through this predicament, then, was to expand my empirical study beyond the London case, so as to reduce the pressure on my involvement in the campaign. This decided, I spent the following year chewing over various different options for a complimentary research focus.

That I eventually settled on the Barcelona case was, largely, the result of good fortune. In September 2016, Switched On London received an invite from the Catalan activist network *la Alianza Contra la Pobreza Energética* (APE) to send a speaker to a European activist gathering in Barcelona the following month, focused on solutions to energy poverty. It was decided within Switched On London that I would represent the group in Barcelona. Preparing for the conference, I attempted to familiarise myself with the situation in Barcelona, and was curious to learn that the recently elected *Barcelona en Comú* led council had committed to creating the largest municipal energy utility company in Spain (*Barcelona Energia*). Thus, going through contacts I already had within both APE and *Barcelona en Comú* (relationships formed at previous European activist gatherings), I decided to arrange a series of interviews for my week in Barcelona,

to find out more about the council's plans for municipal energy, with a view to incorporating this as the additional component of my research project.

Through these preliminary interviews, it became clear to me that the Barcelona case had real promise in this regard. Like Switched On London, Barcelona en Comú was approaching municipal energy as a vehicle for democratising energy. And the latter's attempts to bridge divides between the urban social movement and the municipality (see Chapter 1) would, I hoped, make for an interesting context through which to reflect upon my theoretical interest in the state. I also met a number of members of la Xarxa per la Sobirania Energètica (the Catalan Energy Sovereignty Network, XSE) at the APE conference, who I discovered were discussing plans to contest some of the ways in which the city's municipal energy scheme was developing. This, I thought, added an extra layer of interest and political complexity to the case, which I was keen to interrogate. What's more, I found the conference organised by APE extremely inspiring, and was intrigued to learn more about APE's distinctive approach to energy struggle.

Thus, I took the decision to embark upon a comparative research project, with Barcelona an additional site alongside the London case, in which I intended to investigate Barcelona Energia alongside the activities of XSE and APE – and the interconnections and tensions between these various energy initiatives. In the remainder of this section, I offer a series of reflections on the variegated modalities of scholar-activism that I developed within and between the two cities.

Fieldwork-as-activism

While much of the first year of my PhD project was spent agonising over ways out of the aforementioned predicament, it is worth stressing that my strategy of fieldwork-as-activism in London had, in this initial period of my research project, proved relatively successful. Significant time within this year had been devoted to activism within Switched On London: I had been working on this campaign consistently, taking on a range of core tasks necessary for its reproduction and at times spending as much as four or five days a week on this work. If my primary goal for my PhD had been to free up time for the activism I valued then, at least

in my first year of the project, this goal was certainly met.

I have, however, been unable to sustain the intense level of participation within Switched On London with which I began my project. I was, of course, unable to participate in the London campaign during my period of fieldwork in Barcelona in April-June 2017. And after my return from Barcelona, while I have remained a core member of the group and continued to take on a range of tasks, less of my time has been allocated in this regard. For one thing, the latter stages of my PhD have proved far more demanding on my time than earlier periods, meaning less time for activist endeavours. Here, then, I experienced a real tension between conflicting activist and academic imperatives (Croteau 2005; Autonomous Geographies Collective 2010).

Yet it should also be acknowledged that I have lost some of my initial political motivation for sustained participation in Switched On London. As I will document in the following chapters, while this has in many ways been an effective and interesting initiative, Switched On London has in some respects followed a somewhat frustrating trajectory, in particular becoming more incorporated into the bureaucratic mechanisms of the local state than was initially intended (see Chapter 6). Accordingly, most activists within the group have experienced a degree of declining enthusiasm for the campaign and, in turn, less intensive participation. Activism is an emotionally-charged endeavour (Brown and Pickerill 2009b, 2009a; Derickson and Routledge 2015). In the early stages of Switched On London, there was a palpable sense of hope and excitement driving us forward. Yet sustaining this level of enthusiasm in the face of numerous obstacles has been a challenge (see Chapter 6). I, like others in the group, came to feel somewhat disappointed with the campaign's progression and, as such, it has been difficult to maintain the level of commitment I initially felt.

My experiences in this regard raise searching questions for the scholar-activist project. Given that the trajectory of Switched On London – from hopeful enthusiasm to frustrated de-motivation – is sadly, in my experience, not uncommon (albeit by no means inevitable) for an activist project, how is the scholar-activist to respond? The scholar-activist is in no sense more immune to this challenging emotional pathway than any other activist participant. Yet

because the scholar-activist gains something from their participation in movements and campaigns that others do not – namely, an academic research project and all of its associated benefits – might the scholar-activist also perhaps have weightier responsibilities towards the activist initiatives they participate within?

At times, I certainly felt guilty for my declining participation in Switched On London, with much of this guilt accruing because of the sense of responsibility I felt on account of my peculiar academic privileges. Yet, having endured periods of “burnout” in my previous activist endeavours – brought on by guilt-based participation in initiatives I no longer felt particularly connected to – I was acutely aware of the potential fallout that forcing intensive activist work in the face of declining emotional investment risks (Brown and Pickerill 2009a). Academic privileges notwithstanding, the scholar-activist must take responsibility for their own wellbeing and mental health in the face of what the Autonomous Geographies Collective frankly acknowledge as an at times “torturous” craft of navigating between “two worlds and sets of people with competing priorities, expectations, and pressures” (2010, 248). Without careful reflection on one's own emotional states, resources and necessary boundaries, the risk is that scholar-activism – particularly when deploying the strategy of fieldwork-as-activism, in which the lines between “the field” and “everyday life” are impossible to draw (Katz 2005) – becomes unsustainable. This emotional work became an important component of my scholar-activist praxis in London.

As such, it should be stressed that the bulk of my reflections on Switched On London emerge from my more intensive period of participation between October 2015 and December 2017 (excluding April-June 2017, spent in Barcelona). Indeed, in early-2018, in light of the frustrations alluded to above, Switched On London decided to move away from municipal energy as our primary campaigning focus. The group is now preparing to launch a new project named the “London Leap”, which seeks to build new alliances among diverse grassroots London struggles by collectively developing a vision of socio-ecological transformation (including but not limited to the energy sector) for the city in the face of climate change (see: Switched On London 2018). A discussion of this new

initiative is beyond the scope of the thesis. This is because: i) my less committed ethnographic participation has reduced my level of insight; ii) London Leap has yet to launch publicly and, therefore, there are limited grounds for reflection; and iii) I do not have space within the thesis to discuss this new project in any meaningful way. As such, my study of Switched On London is, in more precise terms, an exploration of the group's municipal energy campaign running between October 2015 and December 2017 (although my experiences in the group since have certainly shaped my analysis of the municipal energy campaign).

In Barcelona, my aspiration towards fieldwork-as-activism encountered a different set of challenges to those faced in London. It was clear from the outset that the Barcelona case would require a different modality of scholar-activism to that deployed in London. For one thing, while my first year of research in London had exclusively been conducted within an activist context, in Barcelona, plans for municipal energy were being devised from within the municipality. Unlike Switched On London, then, where I could gain an in-depth understanding of this municipal energy initiative through my participation as an activist in the group, this was not an option with Barcelona Energia. Instead, this initiative was investigated through a series of semi-structured interviews (see Section 3.5).

What was an option, however, was an activist ethnography within the two activist initiatives I was interested in: XSE and APE. Yet whereas Switched On London was an initiative I had co-founded, operating in a political context that I was intimately familiar with, I had no such relationship to XSE or APE. Moreover, whereas my participation in Switched On London has continued indefinitely, allowing as deep and intensive an engagement as I wish, my participation in XSE and APE was always going to take place over a time-bound period. And while in London I was operating in my first language, my last-minute decision to undertake research in Barcelona meant that I had only five months prior to my departure for fieldwork to learn Castilian Spanish.⁷ Several intensive courses beforehand, alongside daily lessons while in Barcelona, gave me a grasp

⁷ My collaborators in Barcelona advised that learning Catalan as well as Castilian Spanish was unnecessary. However, Catalan was sometimes spoken in meetings, compounding my linguistic challenges.

of the language adequate for the research I needed to conduct, yet still, particularly in the first two months of my time in Barcelona, I felt somewhat unconfident. Taken together, these factors meant that, inevitably, my relationships with XSE and APE were going to be very different to that established with Switched On London.

In my preliminary week of research in Barcelona, October 2016, a number of XSE and APE activists had extended an invitation to me to return for a more in-depth period. Thus, having decided to take up this offer, my proposal put to the groups was that, as well as participating for my own research ends, I would be keen to help out with everyday activities in any way useful, from research to translation, cooking food for meetings to participating in demonstrations. My proposal was enthusiastically accepted. Yet when I arrived in Barcelona in April 2017, my collaborators and I struggled to find many ways in which I could contribute, because of the aforementioned difficulties. One role I did take on – and have continued to undertake since leaving Barcelona – is as a written English translator for the groups, which has proved useful for an array of tasks including international media work and cross-border activist collaborations. Moreover, I happily became an additional body at demonstrations and leafleting sessions while in Barcelona. Beyond these roles, however, I did little to support the everyday reproduction of XSE or APE's struggles. This, then, was a case where what Gillan and Pickerill (2012) term "direct reciprocity" between myself as a scholar and XSE/APE as activist initiatives was difficult to negotiate.

At times, my failure in this regard has led me to question whether conducting research within XSE and APE was an ethical decision. Have I ended up instrumentalising these struggles to further my own academic ends? While I have yet to free myself from this worry altogether, part of me knows that matters are not so black-and-white. For one thing, the XSE and APE activists I have questioned about this hold no such worry, and have stressed that I was a very welcome presence in the group. Indeed, I embraced a range of other scholar-activist approaches beyond fieldwork-as-activism, which are important to consider in evaluating the ethical stakes of my project. It is to these alternative scholar-activist strategies that I turn to in subsequent sub-sections of the chapter.

Before doing so, however, I want to emphasise the support I received from my friend Mònica Guiteras in navigating the challenges discussed in this section, as encountered in Barcelona. Using funding from the ESRC, I was able to pay Mònica, an APE and XSE activist I knew from European energy activist networks, to act as a research assistant during my time in Barcelona. Mònica's assistance was invaluable in working out the ways in which my participation in APE and XSE could, as far as possible, be mutually beneficial, as well as in facilitating some of the relationships required for arranging interviews, and in providing support with linguistic interpretation. Without this help, my scholar-activist pursuits in Barcelona would surely have been far more frustrating.

Informing activist strategy

Moving on, now, to the scholar-activist strategies deployed beyond fieldwork-as-activism, one way in which my research with XSE and APE has generated political value is that I have informally shared my experiences within Catalan activist networks with activists in London, particularly those within Switched On London, in order to inform strategic debates. In particular, I left Barcelona convinced that there was much to learn from APE's novel activist praxis and, specifically, their "everyday" approach to energy struggle (see Chapter 6). Accordingly, I have shared lessons from this among the London activist networks within which I am embedded. Here, I have followed Nagar (2002) in developing a research praxis that fashions connections, solidarities and learning between struggles, seeking to use my "fieldwork" in Barcelona as a means of resourcing what Juanita Sundberg (2015, 123) (drawing on Spivak 1990 and Zussman 2004), refers to as my "homework" of "transform[ing] socio-ecological conditions at home, in places where we have a stake." In this sense, I have ventured into the scholar-activist strategy defined in Table 1 as "informing activist strategy".

Indeed, the intention of informing activist strategy was certainly a guiding factor in the initial conception of my project. In Chapter 1, I explained that my decision to develop a project on energy democracy was based on my belief that an academic study in this direction would be useful for activist praxis. Yet my efforts to inform activist strategy have been fairly restrained. My endeavours to share

experiences from Catalonia within London have taken place purely through informal conversations, as opposed to targeted interventions such as articles written for activist audiences. Similarly, while I did write-up an accessible non-academic briefing on my research findings around municipal energy in the UK for Switched On London activists, this was only circulated internally within the group. I have thus far refrained from documenting any of my research in publicly available formats geared towards informing strategic debates beyond those within Switched On London.⁸

The reason I have been unambitious in this regard, is a sense of anxiety I have come to feel around positioning myself as an activist “expert”. To explain the roots of this anxiety, I want to return to my reflections upon the tradition of “militant research”. My chief concern with this approach pertains to its emphasis on the centrality of informing activist strategy as its core task. The militant researcher is, on Russell’s (2015) account, positioned as something of a strategic mastermind, able to provide novel insights on movement tactics and strategy that have the potential for “identifying and surpassing the limits of our existing selves” (p.223). The question that nags away at me, here, is whether it is really the place of researchers working within the academy to occupy this role.

Although Russell (2015) and Halvorsen (2015) admirably refuse to reify the academy as the site of militant research, for those of us who do find ourselves navigating the contradictory corridors of the university, certain specific issues of power and responsibility enter the equation. One need not reify the academy to note that a degree of social status, as well as intellectual confidence and affirmation, tends to accompany a university position – particularly for those, like myself (a white, middle class man), who occupy already-privileged positionalities. A common dynamic within movements that I have participated within is for confident, highly educated people, usually white and usually male, to dominate debates around movement strategy, leaving less glamorous yet equally vital roles – from childcare to minute-taking – to those with less power, sometimes silencing those whose “view from below” (Haraway 1988) is precisely

⁸ However, a recent article I wrote for *Open Democracy* about economic democracy was indirectly shaped by my doctoral research (see: Angel 2018).

the most valuable perspective in challenging relations of domination. My concern with the militant research approach to university scholarship and its emphasis on informing activist strategy, put briefly, is that it risks reproducing or even intensifying this problematic.

It is principally for this reason, then, that I was in the first instance drawn to the more resource-based fieldwork-as-activism approach, which emphasises the less visible, everyday tasks of reproducing struggle alongside the generation of strategic insight. Now, though, reflecting on my anxieties around informing activist strategy, I wonder if I have been caught up in a tangle of over-reflexivity, a danger highlighted by Routledge and Derickson (2015), who warn against the paralysis that may result from worries around the status and power of the university researcher. The scholar-activist, they argue, while taking questions of positionality and reflexivity seriously, should be confident that after years of analytic training and rigorous research, they are likely to gain insights that stand a chance of serving some use for the movements they work with. Indeed, my sense now is that my own difficulties in coming to terms with and owning my identity have left me overly cautious, undermining my potential to enact a politics of resourcefulness in some important ways.

Going forward, then, my intention for future scholar-activist work will be to remain alert to the danger of silencing other voices, while at the same time becoming more comfortable with the idea that in-depth research within activist initiatives will yield some strategic insights, offered with a sense of humility and openness to critique. Indeed, following the completion of my doctoral research project, I hope to secure postdoctoral funding that would incorporate time for developing non-academic outputs geared towards disseminating the knowledge produced in my PhD in this way.

Participatory research

Another (related) difficulty for my scholar-activist pursuits has been the issue of very little active participation on the part of the activists I have worked alongside. The problem, in this regard, has not been want of trying.

Upon beginning my project, I arranged a number of informal conversations

with energy activists to discuss potential ways in which they felt my research might be productively focused. Yet no clear ideas surfaced in this regard, at least before the formation of Switched On London. The inception of this municipal energy campaign, as discussed previously, presented what seemed like a perfect opportunity for a scholar-activist project. As such, I made it clear to those involved in the founding discussions behind the campaign that I was potentially interested in participating as a scholar-activist, stressing that I would plan to contribute significantly to the everyday reproduction of the campaign. Given my willingness to contribute practically in this way (alongside my pre-existing relationships and in some instances close friendships with those founding the group) my proposal was enthusiastically accepted.

At numerous points throughout my participation in Switched On London, I have offered updates about my research and asked for feedback on its future direction, including any particular questions that the group itself would like to see explored. Yet I have never received anything in the way of a substantive response in this regard. For example, I devoted significant time to producing a briefing on my findings around municipal energy in the UK and Switched On London, before beginning to write-up my thesis. My intention here was twofold: firstly, to distil the insights generated around these questions in an accessible format for the group's own usage and, secondly, to gain feedback and criticism on my analysis to allow for a chance for participation in shaping my research conclusions. Yet no such feedback was ever forthcoming.

The reason for this lack of engagement is clear: everyone within the group is extremely busy, participation in the campaign has from day one been highly demanding and devoting time and energy to discussing my research project was simply never a priority. If active participation does not appear to be something that is wanted by those within the activist initiative in question, it seems entirely inappropriate (not to mention unfeasible) for this to be forced by the researcher. In the case of my doctoral research project, this kind of participation in the design and delivery of my project did not seem to be desired, largely because my activist collaborators did not have the time necessary to devote to this. This was true of XSE and APE as well as Switched On London.

Because attempting to push participation in the face of disinterest would have been highly problematic, I do not regard the absence of participation within my project as a failure on my part. That said, the absence of participation has doubtless had an impact on the utility of my research for my activist collaborators. For I have been left to design and implement my research alone, attempting to make personal judgements about what may or may not be useful. Further, if matters had been different in this regard, perhaps I would have been less shy of disseminating the knowledge generated (the problem raised in the previous section). For my reluctance to share my research findings, as discussed, largely came from my desire to avoid positioning myself as an individual strategic expert – a position that would have been less of a risk, should I have been operating from within a more collective research project.

Changing policy

Perhaps a more conventional form of scholarly political engagement to that discussed thus far, is the aspiration to influence official policy. As already mentioned above (and discussed in greater depth in Chapter 6), Switched On London has ended up oriented around involvement in official policy processes. As part of efforts in this regard, I introduced myself to Greater London Authority officials as an academic researcher (while also being honest about my involvement in the campaign), and produced a series of research briefings around municipal energy and energy democracy for officials that sought to influence policy in the direction of Switched On London's goals. I have also taken up invitations to participate in a range of policy-focused events in London, Manchester, Brussels, Amsterdam and Seoul throughout the course of my project, in which I have given presentations around municipal energy and energy democracy seeking to influence policy-makers across the world.

What is of note, here, is the credibility I have gained through my academic position. While, as documented above, I have strived to avoid using this credibility in order to gain a platform to influence activist strategy, I have felt no such qualms around the strategic deployment of my academic status in order to be taken more seriously in a policy context. This, in short, is because my political

loyalties are without question towards other activists, who I feel a strong duty to avoid exerting power over. With policy-makers, on the other hand, I perceive myself as in some ways operating from an antagonistic political position and, further, to usually begin on the sharp end of the power-relation at play – despite the fact that I see no clear boundary between official and non-official politics, or the state and society (see Chapter 5). I have, then, been happy to take whatever steps necessary to render my enrolment within official policy processes as effective as possible, including emphasising my academic expertise in order to bolster my position.

Academic interventions

Thus far, my reflections in the chapter have been more oriented around attempts to craft a form of scholarship that support explicitly "activist" initiatives. Yet this says nothing of the political potential of scholarship as a form of activism in its own right. Returning to the militant research position outlined above, as well as the challenges to this outlook raised previously, I am also concerned that militant research devalues the importance of academic knowledge production, in its attempt to render the university as "irrelevant" and produce knowledge solely for activist ends.

In this regard, I fully agree that the positivist veneration of abstract academic truths is dead and buried, and I believe that critical social research without genuine political commitment and aspiration is redundant. Indeed, the militant research perspective, rightly, provokes us to challenge the elevation of the university as the supreme sight of knowledge production, and the concomitant obfuscation of the ways in which academic knowledge is partial and situated like any other – a notion particularly important to grasp in the current academic climate of neoliberalisation. Yet pausing to dwell on the current state of the academy and, in particular, its enrolment within relations of domination and exploitation, tells us something important. This is that the university is in no sense an "ivory tower" but rather a site of struggle within which power relations are reproduced and contested (Autonomous Geographies Collective 2010). Academic research often plays an important role in justifying or pioneering

political projects, with the role of the so-called "Chicago School" of economics within the crystallisation of the neoliberal project one obvious example (Harvey 2005). Additionally, universities themselves are in no sense immune from dominant social processes, as recent struggles around the decolonisation of curriculums alongside deteriorating pay and conditions, and increasingly pressurised and disciplining workplace cultures testify to (Castree and Sparke 2002; Mountz et al. 2015). As such, to use Halvorsen's (2015) terms, struggling "in-against-and-beyond" the university in pursuit of a more liberating educational environment and form of scholarship has perhaps never been more important.

Indeed, as well as acknowledging the academy's role in reproducing domination, we must also "[r]ecognise the emancipatory potential of education, research and publications...in the production of commonsense and hegemonic ideas" (Autonomous Geographies Collective 2010, 263). Moreover, we need not deny the enrolment of the academy within relations of domination and exploitation to acknowledge that the "rigour and systematicity" (Pickerill 2008, 138) of academia does enable a form of knowledge with particular epistemological benefits (see also: Derickson and Routledge 2015). In short, pushing academic debates in more progressive directions matters.

This, indeed, has become one other modality of scholar-activism adopted within my research project. My hope is that the contributions to academic debates made within the thesis will push these debates towards emancipatory political ends in several ways. Specifically, I seek to develop a form of scholarship that is radical in the sense described by Raymond Williams (1988, 118), in his famous contention that "To be truly radical is to make hope possible, rather than despair convincing." Thus, as described in Chapter 2, in charting the ways in which energy is being democratised, I will push forward a form of scholarship oriented around the articulation of alternative socio-ecological futures. By foregrounding the ways in which energy democracy activists are making inspiring claims towards emancipatory futures, I seek to craft a scholarly intervention that presents cause for hope in the midst of despair, always returning to the question of political possibility as the recurring motif motivating my inquiry.

From scholar-activism to militant research (and back again)

I want to end this section of the chapter by putting the discussion thus far into conversation with the debate with which I closed section 3.2: that between a scholar-activist politics of resourcefulness on the one hand, and militant research on the other.

The position I have adopted within my project is in many ways resonant with that of the militant researcher described in Section 3.2. My relation to Switched On London is as a fully committed activist participant who would be actively involved in the initiative irrespective of my academic pursuits. Thus, as described by Russell (2015) and Halvorsen (2015), the idea of being “outside” or “distanced” from the practices I am researching is entirely inapplicable, at least in the London case.

Yet I find myself reluctant to position myself as a militant researcher and, instead, drawn towards the scholar-activist politics of resourcefulness advanced by Derickson and Routledge (2015). Firstly, I have voiced concerns pertaining to the ways in which Russell’s (2015) account of militant research and its emphasis on informing activist strategy risks reproducing problematic hierarchies and power relations within the generation of activist knowledge. At the same time, militant research risks eliding other less visible ways in which activism might be resourced by university researchers. These other forms of resourcefulness are foregrounded by Derickson and Routledge, and with my emphasis on the fieldwork-as-activism strategy, are at the very heart of my project. Secondly, I have argued, with Derickson and Routledge, that academic research and debate can serve important political ends in themselves and that, indeed, this is one goal for my research project. This is a goal that, with its attempt to render the university “irrelevant”, militant research does not incorporate.

Finally, the discussion above has highlighted a number of ways in which my roles as academic researcher and activist have come into tension. Thus, as much as I wish to avoid reified accounts of “the academy” and “activism” as bounded separate realms, it seems important to recognise that a number of very real tensions and contradictions exist. While, as discussed, there is an urgent political

imperative to struggle against the bureaucratic, colonial and commoditised logics of the university in its current form, we cannot simply pretend that academic research takes place without such constraints. Nor can we wish away the uneven power relations that saturate universities and their relation to the wider world. Thus, while the anxieties of navigating between split identities as “scholar” and “activist” can prove agonising, to attempt to dissolve these problematics by simply eschewing “the university as a referant” (Russell 2015, 223) seems to ignore the problem. Better, I suggest, to be frank about the ways in which identities and priorities as academic and as activist can easily conflict – while at the same time approaching this conflict dialectically, not dichotomously. The reason, then, that I like the label “scholar-activist” is its honesty and its willingness to accept the need to negotiate between (indeed to explicitly name) the two differentiated moments of scholarship and activism, which it strives to bridge.

On this question of labels, I want to end the discussion of this section by returning to the critique of the concept of activism alluded to in Section 3.2, according to which the “activist” identity implies a problematic division of labour, whereby activism becomes a specialist and fringe activity detached from the everyday lives of most people (Anonymous 1999; Chatterton 2006). This, I believe, is a critique that all scholar-activist endeavours must somehow answer to. Within this research project, I am comfortable retaining the identity of “scholar-activist” precisely because I believe that the praxis explored within the project – both my own and that of my collaborators – to various degrees sits within this problematic conception of activism. As will be discussed in Chapter 6, part of the frustration of Switched On London is its failure to craft a form of praxis that moves beyond the concerns of a small group of already “politicised” people to resonate with everyday life. This, very much, is an “activist” initiative of the order critiqued by those who advocate “giving up activism”. And while I argue in Chapter 6 that APE, in contrast, manage to connect their political project to everyday life in inspiring ways, I also note that the group itself maintains an often dichotomised distinction between politically motivated “activists” on the one hand, and *afectadas* (affected people) on the other hand, with the latter

understood as those drawn to the group through their everyday struggles to get by. As such, just as the attraction of the label of “scholar-activist” is its honest willingness to name and own its thorny engagement with the often frustrating world of academic scholarship, similarly, this label is appropriate for my project because it makes transparent its enrolment within a conception of activism itself riddled with difficulties.

Thus concludes, then, this section of the chapter and my attempt to articulate the messy realities of the scholar-activist approach adopted in my research project. I hope to have offered an honest account of my experiences of attempting to resource activism in various ways, and, further, to have set the stage for my next task, which will be to excavate the specific approach to comparison adopted in the thesis.

3.4 Comparison

As documented in the previous section of the chapter, one year into my research project, I took the decision to adopt a comparative study. This decision, as explained above, can be traced back to the particular dilemmas entailed by my scholar-activist approach and, specifically, the need to take the pressure off my relationship with Switched On London by broadening the empirical basis of my research. Accordingly, there is a sense in which my move towards a comparative approach was not motivated by what might conventionally be understood as a strictly intellectual rationale. Yet, in granting this, it is important to note a number of qualifications.

Firstly, as described above, my research project is principally underpinned by my interest in radical political praxis. I have attempted to base my methodological decisions on questions pertaining to the potential of my project to play some role in advancing emancipatory social change. This, as explained above, is true of my decisions around field sites and the move towards a comparative approach. To argue that, on such grounds, my move towards a comparative study was not made on intellectual grounds, would be to inscribe a problematic binary between theory and praxis, positioning the question of supporting social change as a concern somehow separate from the “intellectual”

business of advancing scholarly debates. This, as explained, runs contrary to the logic underpinning scholar-activism, which strives to respect a dialectical unity between theory and praxis and to open up methodological decisions to a range of praxis-based factors.

In addition, I would hazard that methodological decisions around field sites are often a messy product of different interconnected factors that exceed the question of what would make for the most generative intellectual insights. This is recognised by Katz (2005, 69) who describes her decision to conduct research in Sudan as "an amalgam of historical circumstance, intellectual criteria, practical specifications, and default." Put differently, we make our own research histories, but not under circumstances of our own choosing. It was the circumstances under which I was operating, alongside my political commitments to a scholar-activist approach, which led me towards a comparative approach.

None of this is to say, however, that the move towards a comparative approach has not afforded certain theoretical advantages within my project. Comparison is advocated by many as one means of creating a more "global urban theory" in the face of an increasingly urbanising world. Recent debates have tended to slip into an unhelpful dichotomy between "comparative" approaches on the one hand and "planetary" approaches on the other – a binary that should be resisted (Hart 2017; Loftus 2018). Instead, the turn towards comparative approaches should be understood as emerging through dialogue with recent claims around urbanisation as a "planetary" process (see: Chapter 2 and Brenner and Schmid 2012; Brenner 2013) and Scott and Storper's (2015) attempt to articulate a "general theory of the urban", applicable to all cities across spatial difference. Recent advocates of comparative urbanism argue that these accounts risk a Eurocentric mode of theory whereby experiences from a few Euro-American cities are inaccurately assumed to be universalisable across all urban contexts (Robinson 2015, 2016; Roy 2016b). As such, the specificity of less discussed and researched cities is reduced to nothing more than a form of "empirical variation" of pre-defined urban processes.

Comparative approaches, then, emphasise the importance of revisable theory (McFarlane and Robinson 2013; Robinson 2015). The basic premise

shared by most comparative approaches is that our concepts should be built from the foundations of historical and geographical difference. By tracing similarities and departure points across different historical geographies, comparative studies seek to test and amend theory, generating new conceptual insights and approaches and opening up new understandings of “the urban” itself. It is worth noting that all urban theory is intrinsically comparative, building upon conceptual resources fashioned across variegated urban contexts (Robinson 2016). Yet the recent turn towards comparison is specifically motivated by endeavours to think across contexts that might previously have been seen as somewhat unorthodox. Thus, while comparative research has previously sought to delimit the extent to which apparently “different” cities can be considered together, new experiments in comparative urbanism stress that urban theory can begin anywhere, and that endeavours to trace connections and ruptures between what appear as highly variegated cities can be productive. Thus emerges the imperative towards “theorising from the south” discussed in the previous chapter, the idea here being to flip conventional epistemological geographies such that theory generated “from elsewhere” might shed new light on Euro-American contexts (Roy 2009; McFarlane 2010; Robinson 2015, 2016).

As is true of scholar-activism, “comparative” methodologies encompass a broad array of research strategies and theoretical orientations. The specific approach to comparison adopted in this thesis is inspired by the mode of “relational comparison” advocated by Hart (2017). This is a methodological approach underpinned by an open dialectical perspective that, as discussed in the previous chapter, I intend to put to work as the theoretical foundation of my thesis. As explained in Chapter 2, Hart’s (2017) open dialectics is motivated by a critique of overly “encompassing” accounts according to which particular empirical outcomes are understood as the passive result of common processes. Processes such as urban agglomeration or capital circulation, for Hart, must be understood as actively constituted through the contingencies of difference. This has significant implications for how we understand the relationship between specific “cases” and their place within broader processes. The very idea of a “case study” that offers an insight into how a certain process plays out empirically

should, on this account, be done away with. The point is not to posit a universal process a priori and to study the specific variation of this process occurring in a given historical geography. For the particularities of any given spatio-temporal moment are not the inert result of universal processes but, rather, both cause and effect of processes that exist as nothing over and above a series of historically and geographically specific practices and relations.

Accordingly, relational comparison seeks to avoid positing bounded units of analysis to be compared with each other to offer insights into the operations of a particular process. Instead, Hart proposes an ontological outlook "starting with what seems to be important *processes* and *practices* rather than with any sort of bounded unit – be it nation, city, village, or whatever ” (2017, 389). The goal, in sum, is to understand "how the specific ‘parts’ one has been focusing feed into and shape broader processes, rather than just reflecting or implementing them.” (P.390) The thinking behind comparison, on this account, is that "analysing different fragments [of space] in relation to one another through their specificities as well as their interconnections” allows for a more intricate grasp of the complex dialectic between processes and practices at play in the production of space (p.390).

As such, as already outlined in Chapter 2, London and Barcelona will be approached as differentiated moments within shared processes, with the processes that connect London and Barcelona understood as in part produced through the practices, materialities and other forms of historical and geographical difference at play in these cities. My comparative strategy, then, as incited by Hart, will be to follow Lefebvre’s "regressive-progressive method" of understanding the present conjuncture by "starting in the present, working our way back to the past, and then retracing our steps” (Lefebvre 1991, 66). This will mean beginning from my ethnographic encounters with the situated practices enacted in my two field sites, seeking to understand these practices by tracing their historical genesis and, in-so-doing, excavating the ways in which the practices in question have been enrolled within a co-evolving “dialectical dance” (Ollman 2003) with processes that render my two field sites as always-already interconnected.

Thus, having come to adopt a comparative approach for largely practical reasons, I now find myself intellectually committed to the method of relational comparison set out by Hart. Inspired by Hart, my belief is that a study attentive to the particularities and relationships between the two contexts will illuminate with greater clarity the processes I am interested in investigating, namely, the processes of struggle around the democratisation of energy and the myriad interconnected processes militating against this. Hart herself stresses that "the political significance of this sort of spatio-historical dialectical method extends far beyond the academy, especially as part of the collective process linked to political organising" (2017, 390). My comparative approach, then, constitutes a method for enacting some of the interconnected scholar-activist strategies discussed above.

3.5 Research methods

Having thus far explained the particularities of the scholar-activist comparative methodology adopted within my project, the final section of the chapter now turns to the question of the specific research methods deployed.

My project has been based on mixed-methods qualitative research. Gubrium and Holstein (1997) note that qualitative research, as traditionally conceived, claims to be about accessing and representing the internal experiences and subjectivities of so-called "research subjects". However, this conceptualisation of qualitative research has now been displaced: claims towards any kind of "pure" representation of the research subject's internal reality are no longer tenable. It is now recognised that subjects have agency in representing themselves in certain ways and, further, that any attempted representation will necessarily be filtered through the researcher's own position and perspective. As such, a more contemporary take on qualitative research understands this as a means of co-producing situated and partial knowledge about people's beliefs, values, feelings and motivations via the interaction of the researcher and the research subject (Gubrium and Holstein 1997; Cloke et al. 2004). Understood as such, qualitative methods are appropriate for meeting my research objectives because I seek to understand the intricacies of the ways in which those implicated

in energy democracy initiatives in London and Barcelona relate to the struggles in question, including their motivations for involvement, beliefs about these initiatives' efficacy and their political values and understandings.

One issue here, is that I am seeking to understand events and processes that are still very much in motion, with none of the struggles explored in the thesis in any sense resolved but, rather, still ongoing. As such, it is entirely possible that the arguments made within the thesis will be based on understandings of events and processes that, over time, may prove inaccurate. To mitigate against this concern, I will endeavour to avoid speculative projections about the future, and rather ground my analysis in the recent histories of struggle up to the time of writing.

Three forms of qualitative methods have been deployed within my project to undertake this task: ethnography, semi-structured interviews, and document analysis. I discuss each of these methods in turn below, attempting to remain attentive to questions of positionality and power throughout.

Ethnography

While ethnography is something of an under-used method within human geography (Herbert 2000; Megoran 2006), a number of contributions to the geographical literature on methods and methodology have sought to demonstrate its potential for understanding socio-spatial life (Smith 1984; Jackson 1985; Ley 1981, 1988). Ethnography, in the words of Cook and Crang (1995, 4) seeks "to understand parts of the world as they are experienced and understood in the everyday lives of the people who actually 'live them out'". It is distinct from other qualitative methods, in that attention is directed to people's actions as well as what they say (Herbert 2000). The goal is "to make sense of the actions and intentions of people as knowledgeable agents" (Ley 1988, 121), with ethnography particularly well attuned to illuminating the "processes and meanings" that groups are constituted by and express (Herbert 2000, 550). Ethnography is typically understood as a process of "participant observation", whereby the researcher actively participates in a given culture, documenting their reflections in field notes that strive to offer insights into how this culture operates.

My research project has involved three and a half years of ethnography within the Switched On London campaign (from October 2015 to February 2019, spanning the entire period of my doctoral project, short of the first month which predated the formation of the campaign), alongside four months of ethnography within XSE and APE in Barcelona. The bulk of my research in Barcelona took place in a three-month research trip carried out in April, May and June 2017. This was preceded by two weeks of preliminary research in October 2016, and also supplemented by two weeks of follow-up research in February 2018. Within both contexts, my ethnographic research primarily involved day-to-day participation in the meetings, events and protests that constituted the routine practices of these groups.

I want to be upfront in acknowledging that the amount of time devoted to my research within Switched On London, alongside the fact that this was conducted in my native language in a highly familiar political context, will doubtless have led to a more informed and in-depth ethnographic study than that conducted in Barcelona. This, though, will likely be true of any comparative study incorporating one field site that the researcher is already intimately acquainted with. The question, to my mind, should not be that of whether the time devoted or level of understanding gleaned was equivalent but, rather, whether the ethnographic research conducted was adequate for supporting the conclusions generated in each context. While more time for my ethnographic study in Barcelona would doubtless have afforded opportunities for a deeper investigation, I remain convinced that my focused four months of ethnographic research was sufficiently rigorous for developing the insights on which the reflections in the thesis are based. Indeed, the discrepancy in question owes more to the fact that my period of ethnographic research in London was unusually long for one site within a comparative doctoral research project, rather than that the time I spent in Barcelona was abnormally short. It should also be recalled that, as explained in Section 3.3, the bulk of my reflections on Switched On London emerge out of my first 26 months of scholar-activist ethnography within this campaign (October 2015-December 2017).

As well as the question of temporal variation that demarcates my two

ethnographic studies, the type of ethnographic research conducted also differed. In London, my approach might be characterised as what Butz and Besio (2009) refer to as a form of autoethnographic "insider research". Autoethnography emerged as one response to the critique of ethnography emerging in anthropology within the 1980s. This targeted ethnography's colonial legacy as a method previously premised upon the imposition of the white western gaze upon the practices of exoticised "natives" (Clifford and Marcus 1986). Responding to this so-called "crisis of representation", efforts were made to develop a more reflexive form of ethnography, which acknowledged the role of the researcher's positionality in the production of situated knowledge, beginning to break down dichotomies between the research object and subject. Autoethnography constituted one influential endeavour in this regard, broadly characterised by the inclusion of the researcher's own self-reflections, feelings and participation as relevant "data" used to offer insight into a given culture (Butz and Besio 2009; Chang 2016).

Butz and Besio (2009) offer a helpful typology of different modalities of autoethnographic research, including "insider research", which I feel captures my own project within *Switched On London*. This, suggest Butz and Besio, sees academic researchers "study a group or social circumstance they are part of, and use their insiderness as a methodological and interpretive tool" (2009, 1669). With *Switched On London*, my ethnographic research took place within an activist culture I have been integrated within for the past decade, in a group constituted by people I already had strong relationships and in some instances close friendships with. My "insiderness" was quite clearly a "methodological and interpretive tool", in that my level of participation in the group and the knowledge generated was in part a product of the pre-existing relationships I held.

Within this insider research approach, there is no question of "distance" or "detachment" on the part of the researcher: my relationship to *Switched On London* was the same as all other members of the group, bar the fact that I was simultaneously using my experiences in the group within my research project. As a participant in the group like any other, with no less responsibility for shaping

its activities, the conventional distinction between the research object and subject was very clearly exploded. The benefit of this, I would hazard, is that I have been especially well placed to gain an insight into the activities and subjectivities that constitute the group. On the other hand, conducting research “about” people who are already political allies and friends raises a number of challenging issues. I am faced with the task of “representing” people I care deeply about, and thus am particularly concerned about their experiences within my project and their perceptions about the work I produce.

In Barcelona, I developed a different ethnographic approach, fraught with its own set of difficulties. Here, as discussed already, I was not quite the “insider” I felt in London. Nor, however, was I a total outsider: I had working relationships with a number of XSE and APE activists formed through prior international activist collaboration, and was approached as an insider to this cross-border political culture. Still, this was not my “native” environment and, hence, I would not class my encounters with XSE and APE as insider research. That said, I maintained what Butz and Besio (2009) refer to as an “autoethnographic sensibility” in that I was keen to incorporate my own self-reflections, experiences and feelings as valuable data to draw upon.

This, though, was not a community that I felt fully integrated within, largely because of my struggles to find means of meaningful collaboration as detailed in Section 3.3. I therefore felt a degree of distance to XSE and APE that I did not feel in London, and regularly found myself attending meetings and protests with a sense that I was there more as a detached researcher than as an activist participant. Given my original intentions pertaining to scholar-activism, I found this relationship difficult to make peace with internally, leaving me with a feeling of frustration that was difficult to shake throughout my time in Barcelona.

The final point I want to stress on the question of my ethnographic research, is the ethical question of what I have chosen to document and what I have deemed best left unwritten. As noted by Gillan and Pickerill (2012), researchers collaborating with activists have to be very mindful of this question, given the various risks posed to activist initiatives from their enrolment within academic projects. These include risks to the political efficacy of the activist initiative in

question should a researcher choose to make public some aspect of the initiative that might inhibit its future successes, for instance secret plans or an aspect of the initiative's praxis that might present some form of reputational damage. Moreover, researchers must also consider potential risks to individual activists, particularly those involved in illegal forms of protest and direct action and those living otherwise precarious lives. Accordingly, my strategy has been to refrain from documenting anything that might pose risks to the activists I have collaborated with, irrespective of the potential scholarly gain from doing so. In instances where I have felt unsure about this, for example on the question of whether to write about forms of direct action utilised by APE, I have checked in to ensure informed consent. Thus, in the case of APE's direct action, for example, I sent several core APE activists a draft of sections describing this to ensure all were comfortable in this regard. Additionally, all research participants were given the option of partial or full anonymity (with the choice of disclosing first name, surname, identifying characteristics and role) meaning some names and other identifying details have been changed within the thesis.

Semi-structured interviews

Alongside my ethnographic research, I conducted a series of semi-structured interviews. Interviews in London took place sporadically between August 2017 and April 2018. In Barcelona, interviews were conducted within each of my three periods of fieldwork (October 2016, April-June 2017 and February 2018). Interviews were audio-recorded and generally took around one hour, yet ranged from 30 minutes to two hours. A total of 41 interviews were conducted across both cities, including 13 with reference to the London case and 28 in Barcelona (see Appendix I). My London interviews included one double-interview (an interview with two participants) and therefore involved a total of 14 interview participants. In Barcelona, my interviews enrolled a total of 30 participants. Here, I conducted five double-interviews and one interview with five participants

(perhaps better described as a focus group).⁹ And of the 28 interviews conducted in Barcelona, six of these were follow-up interviews with participants I had previously interviewed at an earlier date. Follow-up interviews were conducted in Barcelona and not in London, because my ongoing ethnographic involvement in the latter context meant there was no need for interviews geared towards gaining an “update”. All interviewees were given the option of full anonymity, including names, roles and organisational association.

With regards to London, I interviewed each of the five other core members of the Switched On London campaign, alongside the Greater London Authority official currently responsible for developing plans for municipal energy, their predecessor in this role (who at the time of interview had left the GLA) and the Head of Research from the energy industry consultancy firm Cornwall Insight, which was commissioned by the GLA to undertake a feasibility study on municipal energy. These interviews with actors directly implicated in contestation around municipal energy in London were complemented by interviews with one other energy industry consultant (from Energy for London)¹⁰ and representatives of pre-existing non-London based public energy initiatives. These latter interviews, with actors who are not directly implicated in the London case, provided important contextual understanding around municipal energy and energy market conditions in order to inform my analysis.

In Barcelona, I interviewed five APE activists (three of whom define themselves as “afectadas” (affected people), with direct personal experience of energy poverty (see Chapter 6) and five XSE activists (two of whom are also APE activists). Further, I interviewed three members of Barcelona en Comú who participate in a voluntary activist capacity alongside two Barcelona en Comú politicians (councillors responsible for energy poverty and culture respectively) and one Barcelona en Comú political adviser, responsible for energy policy. My endeavours to understand the issues surrounding the development of Barcelona

⁹ This focus group was carried out in an instance where the participant initially invited to interview invited four colleagues along to join our discussion. It has not been an important source drawn upon in the thesis.

¹⁰ The consultancy firm Energy for London is not to be confused with the municipal energy initiative established by the GLA, named Energy for Londoners.

Energia (the council's new municipal energy initiative) also entailed interviews with the external consultant who had developed the initial plans for the scheme, alongside five officials from Barcelona City Council (responsible for public relations, energy poverty and energy policy) and the Director of the Catalan Energy Institute, which sits within the Catalan regional government. Finally, I interviewed three representatives from private energy firm Endesa and one representative from private energy firm Gas Natural Fenosa.

As is clear from the above, I conducted far more "elite interviews" – with politicians, officials and private sector representatives – in Barcelona than in London. The principal reason for this is that plans for municipal energy on the part of the municipality in Barcelona are far more ambitious and advanced than in London, enrolling a number of politicians, alongside local and regional government departments and officials. As such, more elite interviews were required in order to gain a comprehensive perspective. Representatives of private firms were also interviewed in Barcelona, whereas not in London. This is because these interviews in Barcelona, while helpful in contextualising the energy policy and market environment, did little to inform the questions I was investigating. I therefore felt that conducting similar interviews in London was not necessary.

I followed Cloke et al. (2004) in conceiving of my interviews as "conversations with a purpose, which represent interpersonal dramas with a developing plot" (p.152). Interviews were purposive as I always entered with a plan for the themes I wished to explore and ideas as to specific questions to do so (see the topic guides included in Appendix II). It was in this sense, further, that my interviews were semi-structured. Interviews were interpersonal, in that knowledge was co-produced through the dynamic interaction between both parties in the interview, and shaped by factors ranging from the rapport developed, to the questions asked and the power relations at play (Hoggart, Lees, and Davies 2002; Cloke et al. 2004). And the "plot" of these interviews was allowed to "develop" through a flexible approach that saw conversation unravel organically, weaving in and out of pre-planned themes as appropriate.

As mentioned above, some of the interviews conducted included two or more participants. This will inevitably have changed the dynamics of the

interview and, thus, the data produced. Multi-participant interviews were incorporated in cases where the original participant I was in contact with suggested the inclusion of additional parties. It should also be noted that two of my London-based interviews were conducted over Skype, at the request of the participants. This no doubt made for a different environment and interpersonal dynamic than if we had met in person, a further factor relevant in the data-generation process.

Another important issue to consider is that of the language spoken in my interviews. In London, all interviews were conducted in English, my first language. Yet in Barcelona, matters were more complicated. Here, in instances where my participants spoke good English and were comfortable doing so, interviews were conducted in English. In other instances, however, interviews in Barcelona were conducted in Spanish, sometimes deploying an interpreter and other times not. Decisions about whether or not to use an interpreter depended on a number of factors, including my own confidence in Spanish (which grew throughout my trip), the preferences of my participants (who sometimes explicitly asked for an interpreter to be present) and my own instincts about the impact of an interpreter on the relationship at stake in a particular interview. This question of language and interpretation was doubtless an important factor in the rapport that developed, the responses my participants gave, my reaction to these responses and, hence, the data produced. In general, I found that even those participants who offered to speak in English, outside of their first language, were less relaxed and more considered in their responses, sometimes restricting the depth of our conversations. Yet, similarly, in interviews conducted in Spanish, I certainly felt more on edge and less able to effectively maintain a well-flowing conversation. This was true of interviews conducted with an interpreter, who I tended to find a complicating presence in the interpersonal relationship at play, not to mention in the mediation of meaning and understanding between the participant and I. And it was also true of interviews without an interpreter, in which I felt anxious about my linguistic competences and in which, at times, breakdowns of communication would occur.

My own positionality inevitably shaped the interview processes in multiple

ways beyond the question of language. My interviews involved discussions with a range of actors with which I held very different relationships, each of which brought its own complications. With Switched On London activists who I had pre-existing close relationships with, as much as I attempted to maintain an informal and conversational format, the presence of an audio-recorder and the shared knowledge that this was being considered as an "interview" that would shape my research, sometimes left conversations feeling less relaxed and familiar than I would have liked. That said, the level of trust and rapport maintained in these interviews still led to some of the most frank and reflective discussions I had, perhaps generating the most detailed insights. With APE and XSE activists, my relationships were far less developed than in London and, accordingly, there was less trust and openness than I perceived in my "native" context.

With most of the activists I interviewed in London and Barcelona, participants were from a similar background to my own: mostly white, mostly middle-class and mostly in their 20s and 30s. This was not true, however, of the APE "afectadas" I interviewed, who were enduring highly precarious living conditions and were in their 40s and 50s. Here, I was conscious of the power-relation at play (classed and also gendered, with each of these participants women) and, in particular, the risk of instrumentalising lived experiences of injustice to serve my own scholarly interests. Upon beginning my collaborative activities with APE, I felt reluctant to ask people to share their personal stories with me, conscious of the risk of asking people to revisit traumatic histories as "data" for me to exploit. Yet, as I will go on to argue in Chapter 6, at the heart of APE's praxis is a commitment towards combating the shame, atomisation and loneliness of poverty and neoliberal urbanism – which often translates as encouraging people to share their stories of personal struggle and loss with others. Accordingly, as I discussed my project more with APE participants, it became clear that some were eager to share their experiences with me and to see these represented in scholarly texts. With this established, I felt comfortable in going ahead with the three "afectada" interviews I conducted, all with participants who explicitly told me they would like to share their stories. While, for scholarly purposes, several more of these interviews would have been

extremely generative, I did not want to apply any kind of pressure on potential participants who had not already expressed enthusiastic consent.

Very different questions of power and positionality entered the equation with my elite interviews. Here, the ethical dilemmas I faced was that of the extent to which to disclose my own activist commitments to the politicians and officials I interviewed, given that doing so may in some instances have reduced the likelihood of their participation, or at least hindered the development of rapport. If I had been operating as an activist without university affiliations or academic interests, I would have felt no ethical obligations towards honesty or full political disclosure when approaching encounters with government or corporate officials. Indeed, my activist experience of such encounters has been one in which my identity has been rendered as strategically malleable.

Yet, in my doctoral project, I am not an unaffiliated activist but, rather, a scholar-activist working within a university. This, perhaps, changes my ethical responsibilities and imperatives. On the one hand, the presumption might be that the power relation between interviewer and respondent is – given the status and prestige associated with academic research – already skewed in favour of the former. And that, therefore, the decision not to fully disclose political commitment on the part of the researcher, serves only to render this power dynamic as more ethically troublesome. Yet, as noted by Erica Schoenberger (1991), power does not necessarily operate in this way with elite interviews, in which respondents will often occupy subject positions and roles with far higher social status than the interviewer (particularly true, I would add, when the researcher is a PhD candidate, rather than an established academic). Thus, while acknowledging the ethical complexities of the issue, Schoenberger is comfortable with incomplete political disclosure. Responding to Schoenberger, Linda McDowell (1992, 214) agrees that while this kind of non-disclosure introduces a new partiality to the data produced that should be recognised and reflected upon, there is no “obligation to declare our position” with regards to one’s political aspirations.

Thus, given that engagements with this question within the literature suggest that there is no automatic ethical imperative towards full political

disclosure – and given the importance I attach to following my activist commitments as an ethical framework – I felt comfortable in inviting elite respondents practitioners to participate in my study, without disclosing my activist commitments in my initial access requests. However, given the dialogical and co-productive approach to interviews I adopted, the questions of my own political inclinations often emerged organically within interviews. In such instances, I was honest about my own political beliefs and commitments, as this felt necessary to maintain a productive interview rapport and a free-flowing conversation – and to avoid having to lie directly, which I think would raise a new set of more thorny ethical problems.

Document analysis

While my ethnographic research and interviews generated the bulk of my data, these methods were complemented by document analysis. Firstly, I analysed a variety of activist documents relevant to each of Switched On London, APE, XSE and Barcelona en Comú, including campaign websites, blog posts, pamphlets, leaflets and meeting minutes. On this latter question – that of meeting minutes – I have had access to Switched On London minutes throughout the duration of the campaign, and was given access to XSE and APE minutes throughout my time in Barcelona. These minutes have provided a useful source to be considered alongside my field notes, allowing me to corroborate between sources.

As for the public activist documents analysed such as webpages, blogs and leaflets, these have proved invaluable as a means of excavating how the campaigns in question endeavour to present themselves to the external world. My ethnography and interviews have provided insights into the internal operations of the activist projects in question and the subjectivities of the individual activists involved, illuminating the nuanced ways in which activists create meaning and understand the world. Yet this would be an incomplete picture, without incorporating the ways in which these initiatives represent themselves publicly, as can be grasped through careful attention to the documents they generate.

In addition to activist documents, I have analysed a number of policy documents relevant for the municipal energy initiatives in question in both cities.

In particular, my analysis of a feasibility study on municipal energy conducted by UK energy industry consultancy Cornwall Insight, commissioned by the Greater London Authority, was an important source in the argument developed in Chapter 5 pertaining to the ways in which municipal energy is developing in practice. Other policy documents analysed are included in the references at the end of the thesis. Again, these documents have proved useful in gaining an understanding of the public narrative and explanation around the policy decisions relevant for my thesis. Yet, as would be expected, my elite interviews have revealed that much goes unsaid in these documents. Triangulating between these different sources has been important in piecing together my understanding of key policies and the rationales that underpin them.

Finally, newspaper articles have been used as a further triangulating source used alongside my interviews and other documents to build the contextual details necessary to frame my empirical findings.

Data analysis

All field notes, interview transcripts and relevant documents were manually coded. Here, I drew on the practical advice of Saldana (2012) on manually coding, categorising and theming my data. I began by working through the data collected in a loose and exploratory fashion, reading through this with my initial research questions in mind. After this more experimental sift, I returned to the data again for my first attempt at coding. Yet I felt dissatisfied with the extent to which my data had cohered, largely due to working with an overwhelming number of different codes. Thus, I recoded the data in an attempt to be more parsimonious. My recoded data was then sorted into around 20 different categories, eventually synthesised into six themes that provided the foundations for the arguments made in the thesis.

3.6 Conclusion

This chapter has explored a range of methodological issues encountered within my research project. In the first section of the chapter, I discussed my attempts to craft a scholar-activist approach. Here, I documented some of the ways in which

this has proved trying. This, I suggested, included:

- Difficulties in maintaining a healthy relationship with the Switched On London campaign, due to fears around its instrumentalisation within my research and due to my declining emotional investment in the campaign;
- Struggles to find meaningful ways to “resource” the activist initiatives I participated within in Barcelona, on account of my time-bound participation in an unfamiliar political context;
- Anxieties around attempts to inform activist strategy on account of concerns around power relations in the production of activist knowledge – and a subsequent degree of over-caution that has restricted my ambition to undue levels;
- The absence of activist participation in the design and delivery of my research, resulting from the understandable reticence of already-overcommitted activists to devote time to my project.

These shortcomings notwithstanding, I also highlighted a number of ways in which my project succeeded in bringing together activist and scholarly goals. In my first year of the project I was successful in executing a “fieldwork-as-activism” strategy, in which I contributed significantly to the formation and reproduction of Switched On London – a strategy which, although less intensively, I have maintained in London. Moreover, my informal dissemination of some of the insights generated within my research has proved useful in London. And I have effectively executed some of the more conventional means of producing politically committed research, including endeavours to influence policy and attempts to build a form of critical and rigorous scholarship capable of pushing academic debates in more hopeful directions. As such, I have illustrated how my scholar-activist praxis has been replete with both frustration and possibility. In doing so, I hope to have illuminated some of the advantages of the scholar-activist politics of resourcefulness advocated by Derickson and Routledge

(2015), highlighting how this approach has inspired my own and explaining why I have, accordingly, maintained the identity of “scholar-activist” rather than that of the “militant researcher”.

In the second section of the chapter, I discussed the interconnected political, practical and theoretical factors that led me towards a comparative study. And I explicated the specific form of "relational comparison" to be adopted in the thesis, as an extension of the open dialectical approach outlined in Chapter 2. Finally, in the third section of the chapter, I set out the different qualitative methods deployed within my project.

With these methodological questions now addressed, I will now proceed, in the following three chapters, to explore the insights generated within my research project. To begin, in the next chapter, I explore the question of why municipal energy initiatives emerged in London and Barcelona, and discuss the initial possibilities for energy democracy that these initiatives opened up.

4. Why municipal energy?

Taking a radical energy politics to the institutions

4.1 Introduction

In Chapter 1, I suggested that the Paris Agreement rendered 2015 a year in which post-political approaches to climate change achieved their most significant milestone to date. Yet, within the UK and Spain, 2015 was also a year in which technocratic market rule was de-stabilised. For, in both contexts, 2015 saw nascent attempts to create new forms of progressive statecraft win significant victories, threatening the reconfiguration of relationships between the artificially fetishised realms of state, market and society. Thus, on 24th May, municipal elections in Spain witnessed “citizens’ platforms” take power in every major city of the country, with housing activist Ada Colau’s victory for Barcelona en Comú the most high-profile of these successes. Less than four months later, on 12th September, Jeremy Corbyn, a former backbench MP and lifelong socialist campaigner, was elected as leader of the British Labour Party. In both contexts, central government remained in the hands of right-wing parties overseeing harsh austerity programs (the Partido Popular in Spain and the Conservative Party in the UK). But the inroads made within local government in the former, and inside the official opposition party in the latter, forced fissures in the post-political consensus that has dominated the UK and Spain for decades.

This chapter will illustrate how the pursuit of a radical politics of energy transition – which predates the formation of both the Corbyn and the Colau projects – came to interact with these state-based struggles in the formation of Switched On London and Barcelona Energia, the two municipal energy initiatives examined in the thesis. In doing so, I will critically engage the theoretical work of Swyngedouw and others on post-politics. As a counterpoint to Swyngedouw’s (2010) arguments, discussed previously in Chapter 2, my contention will be that municipal energy initiatives in London and Barcelona have emerged as novel political trajectories constituted through the specific temporalities and spatialities of climate change and its responses. In addition, I argue that the

political potential of these alternative trajectories has been opened up only through the kinds of engagements with political institutions that Swyngedouw denounces (Swyngedouw 2014; Dikeç and Swyngedouw 2017). Thus, if with Loftus (2014), we seek to theorise the political by learning from actually existing struggle, the chapter provides grounds to reconsider some of the claims foregrounded within the post-politics literature.

The aim of the chapter, in the first instance, is to address my first Research Question (see Chapter 1, Section 1.4), explaining why municipal energy has emerged as central to the vision of energy transition expounded by activists and progressive politicians in London and Barcelona, and describing the novel visions of democratic municipal energy initially imagined in both contexts. Simultaneously, I hope to develop some of the theoretical arguments made within the thesis pertaining to the political geographies of energy transition.

The chapter proceeds in five steps. Firstly, I describe some of the trajectories of struggle out of which Switched On London and Barcelona Energia emerged, arguing that these histories attest to Swyngedouw's claims pertaining to the absence of alternative socio-ecological trajectories within climate change debates. Next, I trace how ideas of energy democracy and energy sovereignty have emerged as an attempt to fill this lacuna in the UK and Spain. I will then turn to the evolution of the Corbyn and Colau projects, before illustrating their role in endeavours to institutionalise a radical politics of energy through municipal energy schemes. I end by returning to Swyngedouw's arguments about the post-politics of climate change and attempting to contest these by demonstrating how, on the basis of the preceding discussion, the specific temporalities and spatialities of climate change might lend themselves to a radical democratic politics.

4.2 No future! The limits of existing environmentalisms

As discussed in Chapter 2, Erik Swyngedouw has recently lamented the rise of a post-political condition whereby liberal democratic capitalism has become the only show in town in much of the world (Swyngedouw 2009, 2010; Dikeç and Swyngedouw 2017). Integral to Swyngedouw's explanation of how genuine

discussion of alternative socio-ecological trajectories has been shut down, is the claim that imaginaries of climate change have been used to rule out this kind of political debate as a luxury we have no time for, given the urgent stakes of the imminent planetary collapse that is threatened (Swyngedouw 2010; Žižek 2010).

Swyngedouw's argument has been met by a number of critiques seeking to show that, on the contrary, there are "very substantial, significant, and ongoing struggles around the politics and politicization of climate change that are directly at odds with some of the "post-political" dynamics that Swyngedouw sees in this area" (McCarthy 2013, 23–24). Chatterton et al. (2013), for instance, argue that climate justice mobilisations around the 2009 COP summit in Copenhagen offered a clear form of dissensus, locating climate change "within the broader crisis of contemporary capitalism." (P.608) Yet Kenis and Mathijs (2014) argue that while this was true, the Copenhagen mobilisations were held back by their failure to articulate an alternative vision of the future, a claim evocative of my feelings pertaining to the mobilisations in Paris described in Chapter 1.

These experiences of COP protests speak to a broader problematic pinpointed by Swyngedouw. Drawing on Badiou (2010) and Rancière (1999), Swyngedouw suggests that "proper' politics must revolve around the construction of great new fictions that create real possibilities for constructing different socio-environmental futures" (Swyngedouw 2010, 223). Yet while emancipatory politics was once premised upon the naming of various alternatives to capitalism – socialism, communism, anarchism – post-politics, it is claimed, has seen the erasure of all such named "great fictions". Part of the explanation here, is the "pure negativity without promises of redemption" that characterises fearful and apocalyptic imaginaries of climate change: "empty' signifiers like 'climate change policy', 'bio-diversity policy' or a vacuous 'sustainable policy' replace the proper names of politics." (Swyngedouw 2010, 224) For by generating a never-ending sense of panic at the prospect of planetary catastrophe, the conditions of possibility for the emergence of more hopeful visions of the future are eroded. In this section of the chapter, I show how the trajectories of environmental struggle that shaped Switched On London and Barcelona Energia

attest to the dynamics alluded to by Swyngedouw: in both contexts, activists had grown frustrated by the absence of an alternative radical vision of the future.

Beginning in London, Switched On London was formed out of informal conversations between activists from two groups: Fuel Poverty Action and Platform (for more on these groups see Chapter 1, Section 1.3). In my interviews with these activists, all expressed frustration around the limitations of a political praxis based solely around resistance, as opposed to articulating alternative visions. Emma, an employee of Platform and core organiser with Switched On London, previously worked on opposing the destructive impacts of BP's oil and gas operations in Azerbaijan. Sharing her feelings about this work, she told me:

In some ways it's brilliant, you're, like, working with, like, you know, these incredible effective communities, and, like, these democracy activists in Azerbaijan, were just such good people to work with, these campaigners in Italy were a privilege to work with. But in other ways it's really difficult, because with... you're just saying that things are bad all the time.

Mika, another Platform employee and Switched On London founder – whose previous work has included supporting struggles against the privatisation of Iraqi oil and the imposition of new BP gas developments in Egypt – echoed Emma's sentiments:

Most of my work was help stop bad shit, or help to change oil and gas contracts to be less rip-off. So also I think, partly, it's wanting to look for positive solutions. Maybe it's because I'm in my mid-30s. Haha! I want some positives, not negatives...Mid-life crisis!

As Mika continued, she made it clear that this desire for “positive solutions” emerged from a body of experiences far beyond the mid-life crisis she joked about. Discussing her time in revolutionary Cairo, Mika said:

I mean I guess that's one thing I took from the failure of Egypt was that we didn't have solutions. The left didn't have a vision. Didn't have a vision to appeal to the public, didn't have a vision that could work, and particularly the kind of radical democratic left, had very few...we have got a lack of a vision of what the future could hold.

While fellow Switched On London founder Laura's experiences within Fuel Poverty Action made for a very different political context – the main target of

critique being the impact of privatised utilities (in the UK colloquially referred to as the “big six”) on domestic electricity and gas prices – she highlighted a similar dynamic to Emma and Mika in our interview, in which she spoke of:

...reaching the end of, like, doing a lot of big six bashing and not really feeling, like, that was giving the next step...this is fine but there's only so far you can go with that, and people seem quite angry with the big six, like, how do you build an alternative? What would it be? What does it look like?

For Michael, a Switched On London activist who joined the group around one year after its inception, these experiences resonate with his take on the problem with climate activism more broadly. Speaking of his initial interest in Switched On London, Michael told me:

For me the motivation goes back to climate change and how do we have a rapid energy transition. And I think quite a while ago I stopped being convinced about, like, that one day there'll be a lock-on big enough or enough people will attach themselves to some fossil fuel infrastructure at once and, like, we'll win¹¹... An innate sense that probably we can't solve the climate crisis without having a different type of energy system. And actually I thought it was weird for a long time that so little of climate activism is actually about the energy system or the economy... Or it's this like weird community energy, like, a hundred solar panels on schools is good. And it is good! It's not shit. It's nice... But I don't know, I can't see how that sort of approach progresses.

Here, Michael alludes to two dominant practices of environmentalism in the UK. Firstly, an approach based on direct action targeting fossil fuel infrastructure and, secondly, small-scale community energy projects. Both of these approaches have been important in shaping Switched On London. On the latter, those founding the group shared a sense that while community energy has an important role to play in a future transformed energy system (see Chapter 1 Section 1.5 and, additionally: Seyfang, Jin Park, and Smith 2013; Catney et al. 2014; Becker and Kunze 2014), the tendency to venerate this as a silver bullet solution within environmentalist circles was evidence of the lack of a compelling vision for wholesale change. In the early days of Fuel Poverty Action, for example, we would advocate replacing dominant privatised utilities with “community-controlled renewable energy”. Yet after a number of encounters with community

¹¹ A lock-on is a direct action tactic in which activists lock themselves to objects or each other to restrict mobility around or access to contested objects or spaces such as runways or fracking rigs.

energy practitioners, we came to realise that radically changing the energy system requires multi-scalar action, connection and coordination in a way that community energy initiatives alone cannot deliver (Catney et al. 2014; Becker and Kunze 2014).

As for the direct action approach alluded to by Michael, the UK has a vibrant tradition of climate change direct action dating back to the Camp for Climate Action network, which between 2006 and 2010, organised annual direct action camps targeting infrastructures and actors implicated in greenhouse gas emissions, from coal-fired power stations, to airports and financial institutions (see: Saunders and Price 2009; Saunders 2012; Schlembach 2011). The Camp for Climate Action was at the heart of a broader network of climate change direct action activists, which continues to exist and has of late been particularly active around resisting shale gas exploration (fracking). The majority of Switched On London's core organising group (myself included) either were previously or continue to be deeply involved in these direct action networks.

The problem identified by Michael is that unless direct action and other forms of resistance to fossil fuels are accompanied by a vision for an alternative socio-ecological trajectory, we risk forms of technological change that leave dominant social relations in tact. As Michael puts it:

A lot of the anti-fracking movement, for example, or a lot of the 350¹² discourse... while there might be other language around the side of it, it does actually come down to like 'fossil fuels bad, renewables good'. Um, and this is like a technological question... 'some people have a vested interest in this technology, and we have a vested interest in renewable technology, so we need to like, fight those vested interests.' And... that like misses out, like, all of the ownership and control stuff.

Thus, while militant resistance to fossil fuels is often accompanied by radical slogans such as "system change not climate change", the activists behind Switched On London shared the sense, emanating also from the work of Swyngedouw and others within the post-politics literature, that a clearer alternative vision needs to be named and narrated. Mann and Wainwright (2018:170) summarise this frustration eloquently:

¹² 350.org are a major international climate NGO.

As fervently as we might demand “system change not climate change,” we have yet to really elaborate—let alone in a democratic or broad-based manner—what “system change” looks like beyond the absence of fossil fuels. Indeed, most of the time, the tacit assumption is that “system change” means a green, renewables-based capitalism. We find ourselves focused almost entirely on environmental “bad guy” capitalists like mining or petroleum corporations, as if without them things would be mostly acceptable.

A connected story can be told pertaining to Barcelona. As explicated in Chapter 3, I seek to follow Hart (2017) in developing a form of relational comparison between London and Barcelona, in which the particular experiences and practices unique to each context are analysed as both constitutive of and constituted by shared processes stretching across space and time. The obvious place to start with this here, is to note that the trajectories of struggle that shaped municipal energy initiatives in London and Barcelona can be linked back to a shared genesis of the “global justice movement” of the 1990s (see: Routledge, Cumbers, and Nativel 2007; Cumbers, Routledge, and Nativel 2008; Routledge and Cumbers 2009). This was an international movement that emerged in opposition to processes of neoliberal globalisation and the free trade agenda and structural adjustment policies of transnational institutions such as the IMF and World Bank. Giorel Curran (2006) and David Graeber (2009) have illustrated that the global justice movement was shaped through a flexible engagement with anarchist politics, expressed through a commitment to direct action, horizontal organising practices, and an emphasis on prefigurative politics that favours the transformation of socio-spatial relations in the present moment over attempts to influence or capture state power – an approach deeply influenced by the “New Left” feminist, queer and antiracist struggles of the 1960s and ‘70s (Curran 2006).

The writing of John Holloway was to some extent influential in shaping the radical political culture within which the global justice movement was situated. For Holloway (2002, 1), changing the world begins from a “NO!”, a “scream” of negation: “Faced with the mutilation of human lives by capitalism, a scream of sadness, a scream of horror, a scream of anger, a scream of refusal: NO” – this is where “we” begin.” Holloway’s scream, though, “is two-

dimensional: the scream of rage that arises from present experience carries within itself a hope, a projection of possible otherness. The scream is ecstatic, in the literal sense of standing out ahead of itself towards an open future.” (P.6) Through its horizontal organising methods, the joy of the carnivalesque protest space, the thrill of collective direct action, the global justice movement developed forms of resistance that, in this vein, made a start on "doing" things in ways that refuse the rhythms of capital. Yet a frequented critique of Holloway is that the open-ended hope imminent within the scream of resistance is insufficient for bringing alternative "yes's" into being (De Angelis 2005). This back-and-forth between the no and the yes, resistance and alternatives, is operative in the predicament pinpointed by Swyngedouw (2010), and the trajectories of struggle that have ensued in both the UK and Spain in the aftermath of the global justice movement.

Thus, in the UK, the climate direct action movement discussed above (and, as such, indirectly Switched On London) emerged out of the global justice movement. The Camp for Climate Action was formed through pre-existing direct action networks associated with this “movement of movements”, most notably Earth First! and Reclaim the Streets, and in particular was inspired by the protest camp held in opposition to the 2005 G8 summit in Gleneagles, Scotland (Schlembach 2011). And in Spain, similarly, the activist networks, direct action tactics and decentralised organisational cultures that characterised the global justice movement have also helped shape a range of subsequent initiatives.

For example, the impetus towards radical democracy has since been channelled into a blossoming social and cooperative economy in many regions of Spain, with strong federations of workers’ and consumer cooperatives across a range of endeavours from agriculture to construction active in the Basque country and Catalonia in particular (Fuster Morell 2012). Pre-existing cooperative ventures inspired staff and students of the University of Girona in Catalonia to establish Som Energia (Our Energy) in 2010, the first energy co-operative in Spain, which has since gone on to become one of the largest and most celebrated co-operatives in Europe, gaining over 35,000 members and supplying electricity to 55,000 customers across the country (see: Riutort Isern

2016). Som Energia is owned and governed by its members, combining online and offline democratic tools to make decisions collectively. As well as supplying electricity, Som Energia also raises capital through its membership to finance an array of new co-operatively owned renewable generating assets including six solar farms, a biogas plant, a hydroelectric power station and Spain's first citizen-owned wind turbine (the latter of which is still under construction).

I discussed Som Energia with Alfons, a Barcelona-based activist from Catalonia's *Xarxa per la Sobirania Energètica* (XSE, translated as the Energy Sovereignty Network), an energy activist network influential in developing the vision of energy sovereignty that I will explore in more depth soon. Alfons, a Som Energia member who told me he "really loves cooperatives" was highly sympathetic to Som Energia's aims and model, yet found these problematic. Firstly, Alfons expressed concern as to the limited scope of the project:

I see the future model not only about supply but taking a lot of parts of the, of the electricity market.

The point here is that while Alfons and other Catalan energy activists see a need to transform the entirety of the energy sector, including supply, generation, distribution and transmission, Som Energia shows real ambition only in the former dimension (while they are active in generation, they are able to generate an equivalent of just 3 per cent of the energy they supply (Riutort Isern 2016)). Further, Alfons objected to the way in which Som Energia's operations span across the totality of Spain, as opposed to being grounded in a particular "territory", as he makes clear in the two comments below:

It [Som Energia] is not rooted in a territory...I mean they are selling energy in Galicia, in the south, in the north, whatever. I really think that we have to, you have to delimit your territory... We'd really prefer to have, like, many of these, uh, companies, whatever you want to call it, in different parts of the country, so people has to, has to recognise easily that the, the company, the public company, public collective company, belongs to a concrete territory.

This is because, for Alfons and others within XSE, people have the right to define their own relation to the energy system within the "territory" they inhabit. Their critique of the current energy system, in turn, centres around the way in which

this is predicated upon centralised imposition of energy developments to the detriment of territorial autonomy, a point explored further in the subsequent section.

Pausing on the case of Som Energia for a moment, though, what becomes clear from Alfons's comments is a frustration with the extent to which this provides a complete or desirable vision of a future energy system. In pressing this, like Alfons, I do not want to understate the importance or inspiration of Som Energia. Indeed, it should be stressed that no comparable case exists in the UK and that, therefore, the extent to which glimmers of more hopeful socio-ecological trajectories are absent is less profound in the Spanish context.

That said, much of the environmental activism in the Spanish case shares the dynamic of resistance-without-alternatives described with reference to the UK. Catalonia is home to an array of struggles against the fossil fuel industry and its supply chain. It was one of several regions across Spain in which companies were granted permission to survey for fracking. In response, local opposition groups were formed across the region, eventually leading to the Catalan government banning fracking in 2014, a decision that was later overruled by the Spanish Constitutional Court in 2016 (ara.cat 2016). Another site of struggle has been the "Castor" underground gas storage project off the Catalan coast. After operations at Castor began in 2012, they were halted one year later following a series of nearby earthquakes. The government then terminated the contract with the operating company Escal UGS, compensating them for €1.35 billion to be paid back over the next 30 years, funded through increases in domestic electricity bills (The Corner 2017). In addition to resistance to fossil fuels, Catalonia has also witnessed an array of localised campaigns in opposition to new nuclear power stations, wind turbines and electricity pylons.

For Alfons, this proliferation of diverse concerns and struggles around the energy system spoke to a need for a more generalised critique of the energy system itself:

We were, like, very convinced that the Spanish energy model was really affecting people, like for... energy poverty, but not only for the energy poverty, because of the, all the, what they call the illegitimate debt, that was, was introduced in our

bills [through the Castor project]... And many of these infrastructures and many of these illegitimate debts came from the energy model, so at one time we were like, "Wow, this is something that we have to... we have to mobilise people, we have to try to build a network in Catalonia, to fight against this, this, model, energy model."

Yet the desire among Catalan activists was not only for a more comprehensive critique but, moreover, for an alternative vision. Gaia, another XSE activist, explained the sense that Catalonia's disparate energy struggles risked lapsing into reactionary "NIMBY" initiatives without some coherence around an imaginary of a future energy system:

La Xarxa [per la Sobirania Energètica] was mainly born before the elections as a reaction to the problems in Catalonia we were facing because of, for example, electricity transmission pylon and also like wind power and nuclear power. So all the local movements that were reacting to this kind of installations in their territory, trying to make these movements not a NIMBY movement, but like a network of movements for another energy paradigm.

Lourdes, one of the founding members of XSE, summarised matters as follows:

The idea now isn't about being reactive. I mean a proposal for an alternative isn't going to come from politicians or from energy companies. It has to come from us, from people that want to see something else. It's more empowering if we're talking about a movement for emancipation, based on people's active participation. The first phase is this resistance, moving beyond them crushing you, destroying your home, to the second phase where you make proposals. That's why we continue to support resistance movements, seeing how these pockets of resistance, particularly in Catalonia, can forge links with each other and from there move towards positive action... You can get tired of so much resistance. It's much more gratifying to propose things. It pushes you much more to keep working.

Thus, activists from XSE, like those in Switched On London, felt frustrated with pre-existing environmental and energy struggles on account of the absence of a compelling story about an alternative socio-ecological trajectory. Important differences between these experiences should not be papered over and will be further excavated in the following section. Moreover, I want to make clear that in pressing this argument, I do not intend to force a binary distinction between struggles focused on resistance and struggles towards alternatives. As Holloway (2002) and Pickerill and Chatterton (2006) argue, alternative ways of being and doing are often implicit within the "NO!", with forms of resistance also implicated

in the formation of subjectivities and forms of knowledge and consciousness that can open new possibilities for transformation (Loftus 2012, see Chapter 6). My point, then, rather than inscribing this kind of dichotomy, is instead to stress that there is evidence that the trajectories of struggle described thus far across both contexts were held back by the dynamic alluded to by Swyngedouw (2010) with which this section started: an overemphasis on negation, without a new “fiction” as to how socio-ecological relations could be radically otherwise. This established, I will now illustrate that out of this problematic, new visions of emancipatory futures did eventually arrive.

4.3 Futures rewritten: towards an emancipatory energy politics

While, thus far in the chapter, I have described histories of struggle pertaining to both climate change and the environment more broadly, at this point I begin to address the specificity of contestation around energy. For in both the UK and Spain, novel imaginaries of the future have emerged charting new socio-ecological pathways for the energy system in particular.

Chapters 1 and 2 have already gone into some detail on the emergence of energy democracy as an agenda for alternative energy futures, with the former chapter discussing the development of energy democracy amongst activists and the latter chapter attending to the treatment of energy democracy in the scholarly literature. In Chapter 1 (Section 1.2), I outlined how this imaginary is being used to frame a multitude of different claims, portending various visions of low-carbon energy transition premised upon social justice and democratic involvement. Moreover, in Section 1.3, I traced the role of activists within Fuel Poverty Action and Platform – activists whose frustrations pertaining to the absence of alternative visions of the future are discussed above – in pushing forward the development of the energy democracy agenda in the UK. As such, the material discussed already in the thesis serves to illustrate that, in the UK, out of the previous absence of alternative future trajectories, energy democracy has been taken up as one attempt to fill this void.

However, I have yet to detail the ways in which ideas around the democratisation of energy have been expressed in Barcelona, via a distinct

agenda of energy sovereignty. The Catalan *Xarxa per la Sobirania Energètica* (XSE) was formed in summer 2013. The idea here was to bring together and cohere disparate initiatives critical of the current energy system – from Som Energia to local anti-fracking campaigns – around a broad vision for a “new energy model”. The imaginary animating this was to be “energy sovereignty”, a term originating within Latin American social movements to assert the right to decide over how energy is produced, distributed and consumed within a given territory. As such, “energy sovereignty” has been used to frame resistance to colonial resource-grabs and the imposition of capitalist development through large-scale energy projects (XSE 2014).

That activists in Catalonia and elsewhere in Spain have opted to deploy “energy sovereignty” as a more frequently emphasised and distinct concept to the notion of energy democracy popular in much of northern Europe is an interesting marker of the specificity of the Spanish context. Firstly, there is a strong culture of solidarity with popular struggles across Latin America within Spanish activist networks, owing largely to a sense of historic responsibility for the legacy of Spanish colonialism and its on-going impacts. As such, there is a broader tradition of ideas and practices travelling from Latin American to Spanish movements.

Second, the concept has resonance in Catalonia and other Spanish regions with a history of opposition to the Spanish state in pursuit of independence, a trajectory of struggle articulated around the concept of sovereignty. Alfons explained:

For the Catalan context, we decided to, when we were, like, deciding our name... There was this, the proposal of “democracy”, but for us as Catalans, no, like, we are always like, like fighting for sovereignty... Like the word “sovereignty” here is very, very important, in terms of people's sovereignty. We don't delegate this responsibility to the state or nation. So we talk about sovereignty rooted in the territories, in different territories, but it doesn't... it has nothing to do with borders.

Catalonia's independence movement is a complex and heterogeneous assemblage of divergent political tendencies, encompassing both right-wing nationalisms and

leftist desires for new forms of sovereignty beyond the nation state. The concept of energy sovereignty, as we see from Alfons, resonates with this latter pursuit.

Thus, XSE (2014) as a group collectively define energy sovereignty as follows:

Energy sovereignty is the right of conscious individuals, communities and peoples to make their own decisions on energy generation, distribution and consumption in a way that is appropriate within their ecological, social, economic and cultural circumstances, provided that these do not affect others negatively.

The concept is deployed with a strong emphasis on notions of “territory” that, again, have travelled from Latin America (see: Escobar 2008). In Alfons’s words:

Energy sovereignty has to be very well related to the social, ecological reality – I mean it has to be located in a territory. So we don't understand a homogenous definition of energy sovereignty, energy sovereignty has to be different in different places.

This, for Alfons and others within XSE, necessitates the “re-localisation” of energy generation and distribution, “physically bringing this closer to the area of use as well as facilitating the participation of the people in the decision making process” (XSE 2014). While the usage of ideas of energy democracy by UK activists implies a multi-scalar imaginary (Platform 2015) and has been developed in response to a perceived fetishisation of the local by community energy advocates, notions of energy sovereignty advanced by Catalan activists are more explicitly connected to a localised politics in which the right of “communities” to determine their own relation to energy is central.¹³ The concept also implies a more explicit critique of the imperatives of capitalist development: while “energy democracy” calls attention to dominant relations of ownership and control within the energy sector, “energy sovereignty” shares this concern, while also offering a more overt challenge to the colonial imposition of large-scale energy infrastructures in pursuit of new avenues for accumulation, and more openly questioning energy-intensive consumption habits in the global north.

¹³ For an interesting discussion of the role of “localism” within progressive politics see: Featherstone et al. (2012). For an interrogation of the politics of “localism” with specific regards to renewable energy see: Catney et al. (2014).

It is important to acknowledge, at this point, that despite these important departure points between energy democracy and energy sovereignty, my thesis remains framed around the former concept. In retaining this framing, I certainly do not wish to imply that the UK's energy democracy agenda is in any way superior to the energy sovereignty agenda in Spain, or to suggest that Spanish activists ought to move towards an energy democracy framing. Indeed, an issue within the development of the energy democracy imaginary so far is that its popularity has largely been restricted to northern Europe and North America, with seemingly less resonance in contexts across the global south, where ideas of energy sovereignty have gained more purchase (Angel 2016). As such, I am convinced that energy democracy proponents have much to learn from the thinking around energy sovereignty. Moreover, I see no need for a unitary terminology in this regard and believe that decisions around imaginaries and demands must be rooted in specific historical geographies. My decision to retain the focus on energy democracy has been taken because, as explained in Chapters 1 and 3, my research has primarily been motivated by political commitments in my native London context, with my project emerging out of a desire to help cultivate the nascent energy democracy imaginary emerging here and elsewhere in the UK. It is on such grounds that I have decided to anchor my thesis around the question of how energy *democracy*, rather than energy sovereignty, might be conceptualised and enacted.

Returning to the core argument being developed in this section of the chapter, I have shown that in both the UK and Catalan contexts, specific historical geographies have shaped variegated attempts to articulate alternative visions for the energy system. While these visions differ in important ways, they share a common critique of techno-managerial market governance, and look to novel forms of citizen participation and control as the foundations of a new model. Therefore, while I previously suggested that the dynamic alluded to by Swyngedouw pertaining to the absence of hopeful futures was present in the histories of struggle I described, my contention on the basis of this section is that in the years since Swyngedouw's (2010) thesis on the post-politics of climate change was articulated, new ways of rewriting the future have emerged.

Yet, as I will go on to discuss, alternative energy futures are not just being imagined, but rather are beginning to be enacted. The conditions of possibility for this, I want to argue, stand in tension with another of the key tenets of the post-politics literature, pertaining to frustrations with a radical politics that engages with traditional political institutions. I begin by tracing the development of the experiments in state-based transformation underway in both the UK and Spain, firstly positioning these within post-politics debates.

4.4 Crisis and resistance: from the streets to the institutions

In Chapter 2, I described how many of the key contributors to the post-politics literature found hope in the spectacular urban uprisings of 2011-12, from Cairo to Wall Street. Yet a key question is how these fleeting outbursts of anger and desire might crystallise into more durable sources of political expression capable of overcoming the post-political deadlock. In their recent introduction to an *IJURR* symposium on urban politics, Dikeç and Swyngedouw (2017) argue that the era of an urban political praxis *qua* Manuel Castells (1983), defined by demands around collective consumption levelled on state institutions, has passed. Instead it is said to be the urban political movement – defined by an "extraordinary" politics enacted at a distance to institutions – that “increasingly define[s] our contemporary urban condition” (p.15). With the state written off as redundant for contemporary radical politics, Swyngedouw and Dikeç (2017, 9) advocate “experimental practices that articulate new forms of egalitarian and solidarity-based management of the commons” developed outside of state and party.

But this argument seems to stand in tension to actually-existing attempts to condense the aspirations of 2011’s “proto-political” uprisings into sustained processes of transformation. Or so, anyway, I will argue in this section, which illustrates how in both the UK and Spain, the “extraordinary” mobilisations that broke out in response to financial crisis and austerity have ultimately fed into attempts to institutionalise radical politics. Because my suggestion in this chapter is that these institutional struggles made possible the municipal energy initiatives I am investigating, understanding why the latter emerged requires some understanding of the development of the former.

Although there is, of course, much differentiating the on-going state-based struggles in the UK and Spain, it is, once again, important to be clear that these are not separate experiences to be compared against each other but, rather, distinct but connected moments within shared processes (Hart, 2017). An obvious starting point for relational comparison here is the financial crisis beginning in 2008, an historical period whose implications have been felt across the globe and whose origins lie in the internal contradictions of a highly financialised form of capital accumulation whose operations are perhaps more spatially extended than ever before (Charnock, Purcell, and Ribera-Fumaz 2014). While the crisis in both the UK and Spain issued in similar trajectories of state austerity, heightened precarity and immiseration, and popular unrest and resistance, “global” processes were articulated through local specificities, resulting in experiences that differed in important ways (Hart 2017), as described previously in Chapter 1 (Section 1.5).

For one thing, Spain has a more ingrained culture of homeownership than the UK (Gonick 2016a). Consequently, mortgage-foreclosures and evictions have become ubiquitous in Spain in a way that they have not in the UK, with almost 320,000 evictions in the former context between 2008 and 2013 (Barbero 2015). Out of this spike in evictions, Spain's famous movement *la Plataforma de Afectados por la Hipoteca* (la PAH, the Platform for People Affected by Mortgages) was formed in Barcelona in 2009, using direct action to target banks and to support people to remain in their homes illegally or else squat vacant properties, rendering squatting as a relatively mainstream practice enacted by thousands of people out of necessity (see: Gonick 2016; García-Lamarca 2017).¹⁴ La PAH was one of several currents of struggle that laid the foundations for the 15M/*Indignados* movement, which in May 2011 saw the occupation of urban centres across Spain under the rallying cry of “They don’t represent us! Real democracy now!” This was a mobilisation triggered by austerity-induced social crisis. Yet this was also a response to long-held disillusionment with political

¹⁴ Although no official data on the extent of this practice exists, between 2008 and 2013, criminal charges for squatting across Spain increased by 168 per cent, making it the fastest growing crime in the country (Libre Mercado 2015).

corruption and the imbrication of corporate and financial power with political institutions. Formed out of activist networks dating back to the global justice movement of the 1990s, the Indignados movement enacted an anarchistic politics of direct action and horizontal organisation, generally expressing disdain towards established political institutions, encouraging people not to vote in the May national elections eventually won by the PP (Fominaya 2015).

In discussing the Indignados with the activists I worked with in Barcelona, I was struck by the common reflection on their part that the UK context of today differs because the UK had no 15M moment. In fact, I, like thousands of others, participated in the Occupy London mobilisation, which saw the grounds outside St Paul's Cathedral (next to the London Stock Exchange building) become home to a temporary protest camp for several bitterly cold months between October 2011 and February 2012 (see: Halvorsen 2015a, 2015b). Occupy in London – and indeed in many other cities across the UK – was directly inspired by events in Spain, deploying similar tactics and organising structures and bringing together a clear anti-austerity platform with the desire for and prefigurative enactment of radical democracy (Pickerill and Krinsky 2012). That said, Occupy in the UK was certainly not a political event on the scale of the Indignados, attracting fewer participants and gaining less influence in the mainstream political debate. In the UK, Occupy is better conceived as one of several flashpoints of struggle that have occurred in the aftermath of the financial crisis, with other key moments including militant student protests in late 2010; UK Uncut's wave of direct action targeting tax-avoiding corporations and banks, peaking in 2010-11; riots that broke out throughout the country, starting in London, following the police killing of unarmed black man Mark Duggan; and sustained trade union organising including mass national marches on Westminster coordinated by the Trade Union Congress (TUC) (Taylor-Gooby 2012).

In both contexts, then, harsh austerity measures led to an array of struggles articulated at a distance from political institutions. It is interesting, then, that in both the UK and Spain, the various struggles described above have crystallised into attempts, to use a phrase popular in Spain, to “occupy the institutions”. I will begin by attending to the Spanish context.

Barcelona: Towards a City in Common

Barcelona en Comú was one of a host of initiatives emerging in the wake of the Indignados uprising, which sought to channel the impetus from the squares into the institutions of formal politics. In a pamphlet documenting their origins and strategy, Barcelona en Comú write:

We took the social networks, We took the streets and We took the squares. However, we found that change was being blocked from above by the institutions. We couldn't allow this. So, we decided that the moment had arrived to take back the institutions and put them at the service of the common good. We decided to win back the city. (Barcelona en Comú 2016, 4)

Thus, while the Indignados movement was initially adamant that its political aspirations could not be met within the restrictions of existing institutions, the struggles that ensued became frustrated with the extent to which their progress was being held back by these institutions and, consequently, began to ask how these institutions could be transformed.

The first answer to this question came in the form of a new national political party, Podemos (see Chapter 1, Section 1.5). But while the Podemos project got underway at the national scale, activists in Barcelona – from a range of urban struggles including la PAH, la Alianza Contra la Pobreza Energética (the Alliance Against Energy Poverty, discussed in depth in Chapter 6) and campaigners against water privatisation – decided to embark upon a municipal project.

Kate, a British activist living in Barcelona for the past few years, a key organiser within Barcelona en Comú's coordinating committee and "international" working group,¹⁵ told me this was largely for "pragmatic" reasons. Firstly, municipal elections were happening in May 2015, prior to the December general election, thus offering an earlier window for change. Second, this was seen as, in Kate's terms, "a more achievable goal"; "we don't have enough power in the central government", in the words of Toni, a member of Barcelona en

¹⁵ This was established as a point of contact to spread information about Barcelona en Comú internationally, and with the longer-term goal of creating an international network of municipalist projects.

Comú's environment working group. Third, as Kate explained to me: "a lot of the movements that were existing were kind of urban local movements, organised on that scale", making the city an obvious place to start building power. Indeed, the idea was that building power in municipalities across the country could amount to a strategy for national change. For Toni: "we believe that if cities and small towns, we all start to do the same thing, if there's fifteen, twenty, cities doing that, you put more pressure on the government to change the legislation."

Thus, led by the popular spokesperson of la PAH Ada Colau, already at this point "a kind of national treasure" in Kate's words, *Guayenem Barcelona* (Let's Win Barcelona, later renamed Barcelona en Comú) was publicly launched in June 2014. Local assemblies were formed in every neighbourhood, alongside thematic working groups (for instance on health, migration, ecology) to begin devising policy proposals. By the winter, an online platform called *Decidem* (We Decide) had been created, allowing anyone residing in the city to submit, discuss and vote on proposals to be taken forward for the manifesto. Meanwhile, negotiations were taking place between the new Guayenem platform – which was quickly gaining momentum – and pre-existing minority left and green parties (see Table 2 below), who were eventually persuaded to join the emerging coalition.

In May 2015, less than one year after publicly launching, 11 Barcelona en Comú councillors were elected to City Hall, making them the leading party within a coalition government formed with the PSC. Barcelona en Comú won the election on two principal agendas (Eizaguirre, Pradel-Miquel, and García 2017). Firstly, the defence of what they term "social rights" – the basic necessities of social reproduction (housing, food, water, energy) – which they argue should be treated as universal rights, rather than commodities. And, secondly, participatory democratic control over the urban process through the expansion of solidarity and commons-based economic initiatives and the creation of "public–commons partnerships" that allow for citizen involvement and control within the public sector. The goal of this, to quote Kate in her closing address to the Fearless Cities conference – an international gathering of municipalist projects from across the world – is "to move local government from being just the administrative arm of the nation state into a vehicle for facilitating self-governance."

Table 2 Pre-existing political parties and movements within the Barcelona en Comú coalition

Name	Description
Iniciativa per Catalunya Verds (Initiative for Catalonia Greens)	“Ecosocialist” party formed as a merger of socialist and green parties. The only party within the Barcelona en Comú coalition who had councillors (two of them) within the parliament preceding the 2015 elections.
Esquerra Unida i Alternativa (United and Alternative Left)	Catalan branch of the Spanish Izquierda Unida (United Left) party, itself formed out of the Spanish Communist Party.
Procés Constituent (Constitutional Process)	Not a political party but a social movement. Articulates an anti-capitalist pro-Catalan independence position.
Equo	Spanish political party founded in 2011 as a merger of 35 different Green parties.
Podemos	See above: new political party emerging out of the Indignados, which at this point, had just won five seats in the recent European elections.

This agenda underpins a political project that Barcelona en Comú and others are referring to as "new municipalism" (see: Barcelona en Comú 2019). While the various citizens' platforms across Spain are at the forefront of pioneering this project, hundreds of initiatives across the world – from urban resistance to Donald Trump's presidency in the US through to experiments in radical urban democracy in northern Syria – are using the imaginary of "new municipalism" to frame their ideas and draw connections to other initiatives for urban change. Drawing on myriad influences, from municipal socialism in the UK, the US and across Latin America (see: Leopold and McDonald 2012) to the "libertarian municipalism" of Murray Bookchin (see: Bookchin 1999), new municipalism begins from the premise that the scale of the city is uniquely positioned for creating more socially just and democratic forms of social

organisation. The emphasis is on the flexible movement between forms of politics enacted both "inside" and "outside" of municipal institutions, emphasising that electoral campaigns must be accompanied by strong grassroots street mobilisation, and seeking to render the local state as responsive to pressure from social movements. Through this, the hope is that, following Kate's words above, the local state can be used to craft self-governance, deploying participatory democratic mechanisms to open up the state to citizen control.

There is an interesting spatial politics underpinning this vision. The Barcelona en Comú pamphlet cited above explains:

Our strategy has been to start from below, from what we know best: our streets, our neighbourhoods. The proximity of municipal governments to the people makes them the best opportunity we have to take the change from the streets to the institutions. Cities have always been a place of encounter, of exchange of ideas, of innovation and, when necessary, of revolution. Cities are where democracy was born, and they'll be where we can start to recover it. (Barcelona en Comú 2016, 4)

The city, then, is conceived of as a privileged scale for building radical politics. Influential here are the ideas of Joan Subirats, a Spanish political theorist, Barcelona en Comú co-founder, and newly appointed head of culture for Barcelona City Council. For Subirats (2017):

We need political decision-making systems that invite-incite-engage people, rather than processes that ask people to participate in what others have thought needs to be done. And, surely, to do this, we need a little more humility when it comes to doing politics – and this implies changing power structures and the distribution of responsibilities. In the face of ever more complex problems, with more structural implications and more heterogeneous interests, we need a reconfiguration and an expansion of collective decision-making mechanisms.

The city, for Subirats, is the scale through which this political shift towards increased citizen participation and control should begin. This is owing to the "proximity" of municipal institutions to the rhythms of everyday life, which makes citizen involvement in decision-making more feasible than is true of the nation state (Subirats 2016). Yet the point is not to fetishise the local but, rather, to recognise its place within spatially extended relations. "The local is more global than the national", Subirats told me in our interview. For it is at the local scale, in

the domain of everyday life, that globally reaching processes are felt and intervened in. It is for this reason, that new municipalism emphasises the importance of the neighbourhood and the city in its scalar imaginary, while simultaneously arguing that municipal initiatives must link together in a global network in order to confront the processes that stretch beyond these smaller scales (Barcelona en Comú 2019).

In the next chapter, I will start to address the question of how successfully the Barcelona en Comú agenda for "winning back the city" has been implemented in the years that have ensued since the election. My purpose for now, though, is to explain the historical origins of the project, alongside the political vision that motivates it. Having done so with the Spanish case, I now turn to the UK.

Reclaiming the party in the UK

In contrast to Barcelona Energia's origins within the municipal project described above, in the UK it was engagements with institutions at the national scale, through Jeremy Corbyn's election as leader of the British Labour Party (see Chapter 1, Section 1.5), which inspired the formation of Switched On London. Accordingly, while the preceding section addressed the specificity of Barcelona as an urban space, here I speak to the UK national context.

The surprise return of socialism within the British Labour Party has emerged out of a set of relations connecting the UK to the Spanish context and elsewhere. Firstly, a sense of widespread disillusionment towards the established political classes, resulting from the hollowing out of mainstream politics through the establishment of a post-political consensus (Mouffe 2005; Rancière 2009). And, secondly, the heightening of pre-existing antagonisms ushered in through post-crisis austerity policies (Mouffe 2018). For some, the result is conceived of as the emergence of new populisms of both the right and the left, understood as the product of existing political forces' failure to adequately address the financial crisis and its aftermath (Soltý 2013; Araujo et al. 2017; Mouffe 2018). Owing to the ambiguity of populism as a concept (Kipfer 2016), the question of whether or not the Corbyn and Colau projects should be understood as such has no easy answer, and is beyond the scope of this thesis. What is important for the task at

hand, though, is to trace the relations through which the current political conjuncture has emerged.

The post-political condition that has taken hold across capitalist democracies of the global north was in many ways a phenomenon originating in the UK through the pioneering neoliberal experiments of Thatcher and New Labour (Hall 1980b, 2005; Harvey 2005). Yet, interestingly, Barcelona was an important reference point for the New Labour project. Blair and other New Labour architects are known to have taken inspiration from the "Barcelona Model" described previously in Chapter 1 (Section 1.5), premised upon a managerial and entrepreneurial form of urbanism legitimised through consensual state-civil society partnerships. Thus, in 1996, Blair publicly praised Barcelona's mayor Pasqual Maragall as demonstrating "what can be achieved in reinventing the city's identity through rebuilding and regenerating the public sphere." (cited in McNeill 1999, 10) In this sense, following the open dialectical gaze developed in Chapter 2 (Hart 2017), we witness the construction of policies geared towards the erosion of dissensus towards free-market ideas and practices as a process constituted through the localised yet interconnected experiences of multiple places, including both the UK and Spain. And, just as the rise of Podemos, municipalist projects such as Barcelona en Comú, and new right-populist party Ciudadanos demonstrate a popular hunger for electoral options beyond the post-political mainstream in Spain (Rodon and Hierro 2016), when Jeremy Corbyn emerged offering a programme that clearly departed from this, it proved highly successful.

Furthermore, as was the case in Spain, it was the impact of state austerity that acted as the trigger for pre-existing frustrations to crystallise into an electoral project. Opposing austerity is at the heart of Corbyn's agenda, with his leadership moving the Labour Party to an anti-austerity position for the first time since the financial crisis. The success that Corbyn has achieved thus far should be understood as, in part, built on the foundations of various waves of resistance throughout this period, from sustained trade union activity through to riots and militant direct action, as described above (Taylor-Gooby 2012).

Indeed, for many commentators, Corbynism is, in part, an attempt to synthesise the decentralised cultures of “new” social movements such as Climate Camp and Occupy with more traditional leftist organisational forms and concerns (Wainwright 2015; Gilbert 2016). Emma and Mika from Switched On London are both deeply embedded in the anarchist-inspired autonomous political cultures described earlier, yet now also find themselves organising within the Labour Party. “I used to be very squarely an anarchist... state control would not have interested me”, Emma told me. She explained:

In the current context, it feels, like, that the state is really, you know the state is a really useful tool to be working with and using, and why are we limiting ourselves by just rejecting it?... I feel like something around what happened with the response to austerity, where, I mean there was Occupy, and Occupy was like ‘we’re not making demands, we’ve had that’... Maybe there was something in the New Labour years when it’s like, what was there to find in the state? It was all so awful. But I remember when the last, the 2015 election, when the Tories got re-elected, after the Coalition, with a majority government, now who was it in the Guardian or something wrote: ‘The worst thing that New Labour did was to make us forget to hate the Tories’? I think that’s so true.

For Mika, meanwhile:

At the moment in the UK there’s a massive political opening to transform stuff. For me the only comparable political opening was in Cairo, in 2011-2012, which was obviously very different, but the only other opening I’ve experienced politically in my activist lifetime, where we can drive significantly different politics into a much wider space.

Considering these comments together offers an interesting insight into some of the logics underpinning many activists’ decisions to combine politics enacted outside of the institutions with participation in the Labour Party. This was both a defensive decision, with the immiseration of austerity and the prospect of further years of Conservative rule rendering a refusal to fight within the institutions, to use Emma’s words, appear as “self-indulgent”.¹⁶ Yet this this was also a move

¹⁶ To clarify, my intention here is to offer an insight into the motivations underpinning the decisions made by some anarchist and autonomist activists to engage in the Labour Party. I do not in any sense wish to dismiss anarchist or autonomist perspectives, which have been very influential in the development of my own politics, as “self-indulgent”. Indeed, anarchist and autonomous politics remain a vital tradition of emancipatory theory and praxis (for important recent anarchist interventions within geography, see: Springer et al. 2012; Springer 2013, 2014; Pickerill 2017).

motivated by a newfound understanding of the state as a terrain of struggle, through which opportunities for radical change might emerge.

As for the kinds of changes promised, Corbyn's programme is grounded in traditional social democratic policies such as an end to state austerity, free education and the re-nationalisation of the railways. Yet there is also an attempt to transcend nostalgia for the post-45 Keynesian settlement, with a commitment to forms of economic democracy beyond top-down state control involving increased worker and citizen participation (Labour Party 2017a). This vision of the democratisation of state enterprise has been emphasised by Corbyn, McDonnell and their allies for years before their ascent to power within the party. Both figures were involved in radical municipal projects in the 1980s. Most prominent here was the Greater London Council (GLC), 1981-86, which under the leadership of "Red" Ken Livingstone, attempted to use the resources of the state to empower social movements and craft participatory democracy (Cooper 2017). McDonnell himself was deputy leader of the GLC in this period, as well as being a co-author of the *In and Against the State* pamphlet discussed in Chapter 2, which proved highly influential in the development of British municipal socialism (London Edinburgh Weekend Return Group 1980). Thus has arisen the remarkable scene of a potential future Chancellor of the Exchequer reviving these long-forgotten ideas in a number of recent comment pieces and public discussions. For example, at "The World Transformed" conference in Brighton, September 2017 (a fringe event of the official Labour Party conference organised by Corbyn supporter-group "Momentum"), in a session entitled "Governing from the Radical Left", McDonnell told a packed audience:

The concept of "in and against the state" was to explain to people that the state, yes, is a set of institutions, but it is also a relationship. And it's a relationship of dominance largely. So when, as you might recall, I was involved in the GLC, when we took over County Hall we tried to implement that policy of "in and against the state". So yes we took control of the state mechanism at County Hall but at the same time what we tried to do is change the relationship completely, of dominance... That's what we will have to do in government and we should start planning for that immediately. (McDonnell 2017)

As with Barcelona en Comú, then, the experiment underway within the Labour Party aspires to transform the state relation, introducing forms of citizen participation and management that begin to challenge the artificial separation of the political and the economic, or state and civil society, as are integral to capitalism (Jessop 1982). In doing so, these projects seek to channel the desire for radical democracy from the streets to the institutions. This is a process that is perhaps more obvious with Barcelona en Comú, due to this initiative's origins within urban social movements. Yet this is a process that I have suggested is still applicable in the apparently more "top-down" project of Corbynism, due to the ways this has been indirectly shaped by a range of struggles waged at a distance from state institutions.

In illustrating this, I have shown how actually existing struggles are departing from the trajectory identified by Dikeç and Swyngedouw (2017) at the start of this section, according to which contemporary radical politics is being articulated outside of established institutions. For, while, in both the UK and Spain, the impact of financial crisis and austerity crystallised years of discontent towards post-political rule into forms of mobilisation enacted outside of state and party, in both cases, frustrations with the restrictions imposed by these institutions ultimately led to the emergence of attempts to "occupy" and transform them. The significance of this for the question at hand, beyond the challenge to claims within the post-politics literature, is that it is through these institutional struggles that possibilities for concretising a radical politics of energy transition have opened up. This is the argument of the next section.

4.5 Municipal energy: concretising radical energy futures

Thus far, the chapter has described the development of two political trajectories applying across both the UK and Spanish contexts: the formation of new visions of radical energy futures on the one hand, and the rise of endeavours to transform political institutions on the other. It was, I will suggest, through the interrelation of these two trajectories, that Switched On London and Barcelona Energia were formed. I begin with the London case.

In August 2015 – the month prior to his victory in the Labour leadership contest – Jeremy Corbyn, in an interview with Greenpeace, expressed his desire for public ownership of the UK's “big six” energy supply companies, alongside gas and electricity grids (Unearthed 2015). Within hours of Corbyn's comments, financial analysts at Jefferies stockbrokers had costed the proposal at £185bn, a figure that quickly hit the headlines, positioned as the latest example of the threat to economic stability posed by the radical Labour leadership (The Guardian 2015). In light of these events, activists in both Fuel Poverty Action and Platform began to discuss the new political context we were entering.

I was one of the four people present at the first informal meeting arranged between the two groups, which took place in the windowless and unheated cramped office of Platform by Tower Bridge in south London, huddled around a flipchart. Our assessment was that Corbyn's election had opened up new political opportunities to begin to concretise the energy democracy vision. Yet we were concerned about the way that Corbyn's energy agenda was taking shape. Firstly, on his desire to nationalise the big six, we feared this would translate as a return to top-down nationalisation, without genuine democratic control (Cumbers 2012). Moreover, the uproar that had ensued in the aftermath of his comments highlighted the extent of the work to be done in shifting debate on this issue. We agreed, therefore, on the need for an intervention that could, on the one hand, support Corbyn against reactionary critique, while on the other hand push him towards a vision of energy democracy.

As Mika would put it to me in a discussion two years later, we were approaching things “from a campaigner's perspective”, which is to say that we were interested in live political opportunities and winnable demands. The meeting in which the idea of Switched On London was formulated took place just over half a year before the 2016 London mayoral elections. Our belief was that this provided an opportunity to push new ideas into the political debate in London and, subsequently, nationally.

But as well as these pragmatic concerns, we also felt politically committed to the idea of municipal energy, seeing this as particularly well suited for advancing the kinds of democratic energy transition we wanted. As Emma would

later make the case to an event on municipal energy at the 2017 Labour Party conference in Brighton, “the municipality is a scale small enough to be responsive and accountable to people's needs, while at the same time being big enough to achieve ambitious change”. Indeed, the Berliner Energietisch (Berlin Energy Roundtable, see Angel 2017) campaign we drew inspiration from offered a model of municipal energy that promised both participatory democracy and large-scale ambition. This campaign demanded the re-municipalisation of the city’s electricity distribution network and the formation of a new “social, ecological, and democratic” municipal energy utility company. The latter would aim to tackle energy poverty through fair pricing and would invest substantially in new renewable generating capacity and aim to sell 100 per cent renewable energy. It would be fully owned by the local council, but governed through a variety of participatory democratic mechanisms such as advisory neighbourhood assemblies and elected worker and citizen board members.

To those of us involved in founding Switched On London, this portended a model of municipal energy with the potential to advance a radical vision of energy democracy. This stood in stark contrast to the ways in which municipal energy companies were taking shape in the UK. As I will explore further in the next chapter, both Robin Hood Energy and Bristol Energy, the two companies that had been launched prior to the formation of Switched On London, are somewhat limited in their ambition, having only vague renewables commitments and nothing in the way of democratic participation. Our hope was that a campaign for a more radical vision of municipal energy in London would push other UK municipalities, as well as influencing Corbyn's national agenda.

To do this, our plan was to build a broad civil society coalition, to demonstrate the breadth of support for our demand across a diverse range of interests. Thus, in the weeks following our initial founding meeting, we discussed the proposal with a range of NGOs, trade unions and grassroots organisations, ultimately succeeding in bringing together a wide-ranging coalition, as set out in

Table 3 below.¹⁷ The coalition assembled demands a socially just, clean and democratic municipal energy company for London, as set out in Table 4.

Table 3 Switched On London supporting organisations. Source: (Switched On London 2019a, n.p.)

NGOs	10:10
	350.org
	Climate Revolution
	Community Reinvest
	Global Justice Now
	Greenpeace
	MADE (Muslin Action for Development & Environment)
	New Economics Foundation
	Platform
	We Own It
Trade Unions	PCS (Public and Commercial Services Union)
	Unison
	Unite
Grassroots organisations	Campaign Against Climate Change
	Debt Resistance UK
	Disabled People Against Cuts
	Fuel Poverty Action
	Hackney Energy
	UK Uncut

¹⁷ In practice, very few of these groups have ended up devoting significant resources to the campaign, which has been coordinated by members of Fuel Poverty Action and Platform, alongside unaffiliated activists and, in the earlier stages of the campaign, employees of Global Justice Now and the New Economics Foundation.

Table 4 Switched On London's demand for a "socially just, clean and democratic" municipal energy company. Source: (Switched On London 2019b, n.p.)

Socially just	Clean	Democratic
"An energy company that offers fair, affordable prices, based on a progressive pricing system."	"A company that commits ambitious public investment in new renewable energy generating capacity (we are initiating research into an appropriate specific investment target). A significant portion should be invested in renewable capacity inside London."	"A board of directors made up of: 1/3rd London public officials; 1/3rd energy company employees elected democratically by the whole energy company workforce; 1/3rd ordinary London residents, elected democratically with all London residents and all non-London customers given a vote. Board membership must guarantee at least 50% representation of women."
"An energy company that does not cut-off access to those who can't pay and that does not install unwanted prepayment meters."	"The GLA and London local authorities must divest their pension funds from fossil fuels, and re-invest this money to fund the new renewable capacity we need. Other public funding sources for new renewable investment to be explored are municipal bonds and borrowing."	"Annual open assemblies in every London borough, where representatives of the company have to answer questions and take input and advice."
"An energy company that re-invests revenues in measures to address fuel poverty and the cost of	"An energy company that aims to sell 100% renewable energy as soon as feasibly possible."	"The creation of an online democratic forum where people can discuss and influence the company's

living crisis, particularly prioritising ambitious investment in household energy efficiency.”		operations, including through public petitions.”
“An energy company that treats its workers fairly, meaning paying at least a London Living Wage, good terms and conditions, secure, unionised and non-precarious work.”		“An obligation for the board to discuss public petitions, if backed by 1% or more of London’s population. An obligation for an online referendum on a proposal, if backed by 5% of London’s population.”
		“100% transparency in all operations.”
		“These democratic measures apply to all London residents, regardless of citizenship/nationality status.”

The demand made by Switched On London has thus far been levelled at the Greater London Authority (GLA), the layer of government responsible for the region of Greater London. Yet there is a shared sense within the campaign’s coordinating team that the radical potential of the demand arises from the prospect of introducing a form of democracy beyond traditional state control. As Laura put it to me: “it’s the democracy element that’s like... that’s what makes it different and makes it interesting”.¹⁸

¹⁸ The social justice dimensions of the demand would also make for a significant departure from the status quo. In particular, the commitment to avoid disconnections for those who cannot pay challenges the basic logic of the commodification of energy in ways discussed in more depth with reference to Catalan energy struggles in Chapter 6, Section 6.4.

The potentialities of the demand are not seen as restricted to the specific content of the municipal energy company alluded to. Consider these comments from Emma and Laura:

We want to achieve certain things, like, policy-wise, with SOL, like setting up a public not-for-profit company in London, you know, that has democracy embedded in it in a meaningful way. But then we also want to use that thing as a way of doing all the other stuff we're talking about and pushing the other stuff even further and building out from it. (Emma)

It's having that one thing, one way of starting to change the system, and although you're starting within, it's something that is winnable, you're getting people starting to think and starting to consider public ownership and democratic ownership, hopefully, if you're doing it well. And I think that for me is more about the key aim, I don't see this as being the point in which we are like 'ah, we can revolutionise the energy system and this is how we're going to change it'. (Laura)

Summarising this line of thinking, Archie, another Switched On London activist involved in the campaign since its early days, said:

It's both a radical utopian demand and an actual thing we're talking about. Both of those things have problems, but it feels like it can be framed as that thing in that space between, "Oh, I just want a better world," and something more specific.

The work of marxist-feminist theorist Kathi Weeks (2011) can help us to conceptualise these comments. As discussed in Chapter 2, Weeks deploys the concept of the "utopian demand" alluded to by Archie in her attempt to develop a post-work feminist politics. The utopian demand, recall, is a proposal for some form of immediate change that, while possible within existing social relations, portends the transformation of these social relations. Utopian demands, for Weeks, do both epistemological and ontological work, denaturalising and challenging dominant relations and expanding the political imagination on the former front, and opening up new struggles and sources of power on the latter. While Weeks grounds her arguments around what is ostensibly a very different set of struggles to those instigated by Switched On London, this theorisation of utopian demands helps frame the political aspirations of the latter initiative. As mentioned previously, activists at the forefront of developing visions of energy democracy had previously been frustrated by the absence of a means to

concretise this imaginary in practice. The political space opened up by Corbynism provided an opportunity to do so. Activists behind Switched On London attempted to capitalise on this opportunity through a campaign premised upon a seemingly winnable demand, the belief being that the process of struggle around this demand had the potential to advance more "utopian" ends.

This utopianism, firstly, pertains to the transformation of the energy sector. The campaign was established with a view to popularising a critique of dominant trajectories for the energy sector and advancing the struggle for energy democracy. Yet Switched On London's utopian aspirations do not end here. Rather, implicit within the attempt to democratise energy, is the attempt to promote the democratisation of the socio-ecological environment more broadly (Swyngedouw 2004; Loftus 2012). Emma described her enthusiasm around the campaign in its inception:

It isn't just about redistribution of wealth, but redistribution of resources, and taking control of resources. And all of these really important ideas I believe in and I have thought about and I have felt like I am organising towards, like suddenly in an energy context – which is a context I am working in and again have done lots of stuff around – suddenly here's a way to talk about these socialist ideas in an energy context. So I guess that was like, oh, wow, this is really exciting!

Archie, below, follows a similar logic:

SOL's a starting point though... establishing a genuine demand, establishing the idea of energy democracy and then connecting to other groups who are doing... we've connected with lots of groups who are trying to do different things. Be that Take Back the City or Just Space,¹⁹ all of them are flawed and small and whatever, but it is part of an ecosystem of London scale, urban scale democratic politics, demands for a democratic politics.

For Archie, SOL's demand for municipal energy and "the idea" of energy democracy this embodies open possibilities, through its interaction with other struggles and demands, for the democratisation of the urban environment (Swyngedouw 2004; Loftus 2012), including but not limited to the energy sector.

¹⁹ Take Back the City were a grassroots initiative to "crowd source" a people's manifesto and candidate for the London Borough of Newham in the 2015 local council elections. Just Space is a network of London-based community organisations attempting to participate in urban planning. Switched On London has collaborated with both initiatives.

Ultimately, Switched On London seeks to explore whether the ideals of grassroots participatory democracy cherished by the campaign's predecessors – from the Camp for Climate Action to Occupy – might be introduced into the processes of the municipal state such that these become transformed, perhaps even unrecognisable (Lefebvre 2009a; Cooper 2017). This chimes with the work of Harvey (2012) and Cumbers (2015) on commoning through the state, as described in Chapter 2, according to which state institutions can be used as a vehicle for promoting participatory collective control over the socio-ecological processes that constitute everyday life.

This politics of commoning through the state is also being enacted in Barcelona where, as I have described already, the Barcelona en Comú led city council is attempting to use the institutions of the municipal state to enhance popular democratic control over the urban process. The Barcelona Energia municipal energy scheme is one of the central initiatives through which this broader political experiment is being instantiated. In an online article used to publicise this launch, Barcelona en Comú's councillor responsible for water and energy policy Eloi Badia (a former member of XSE, the Catalan Energy Sovereignty Network) wrote:

Barcelona City Hall has decided to do all we can to change the energy model. We want a model that makes for a cleaner city, that reduces the impact of energy production as much as possible, that promotes energy autonomy, democratizing energy, and putting citizens at the centre of decision-making, as well as guaranteeing access to energy for all. In Barcelona we're working on the transition to energy sovereignty.

But we can't make this transition alone from city hall; we must build a coalition with citizens and the renewable energy sector.

We're taking this step from a municipalist perspective, with the goal of guaranteeing that electricity and gas are treated as basic services rather than commodities. We're taking this step in the face of a central government that's in the pocket of the energy sector, thanks to the revolving doors between public office and the corporate world, rather than making laws to benefit citizens. (Badia 2017)

Thus, Barcelona Energia, just like the kind of institution demanded by Switched On London, is imagined as an initiative of the local state that will offer popular control, "putting citizens at the centre of decision-making". Indeed, the

claim is that Barcelona Energia helps to concretise the vision of “energy sovereignty” developed by XSE, as described earlier. It is in this sense that the pre-existing attempt to articulate a radical politics of energy transition, framed around the notion of energy sovereignty, came to interact with Barcelona en Comú’s attempt to transform the municipal state. Barcelona en Comú took the idea of energy sovereignty (alongside some of the figures, like Eloi, who had played an important role in developing this) from the grassroots to the institutions, ultimately attempting to materialise this imaginary through the Barcelona Energia scheme.

Barcelona Energia has been established as a municipal electricity company active in both generation and supply. On the former, the company aims to act as a vehicle for accelerating the deployment of new renewable generating capacity, primarily solar PV, within Barcelona. On the latter, the company will supply electricity (currently not gas) to municipal-owned enterprises alongside private households and businesses, at a ratio of 80:20 (municipal: private consumption). This strict prioritisation of supplying to municipal enterprise results from the Spanish legislative framework: the city council wanted to power its own operations without undergoing a competitive tendering process, a decision that legally ties the company in to this 80:20 ratio. The company began to supply to municipal enterprises in July 2018 and started supplying to other business and residential users in January 2019. More details on the precise functioning of the scheme are discussed in Chapter 5.

In October 2016, I met with Toni, a member of Barcelona en Comú’s Environment working group, and Pablo, an energy consultant (and former member of XSE) who at the time had been commissioned to draw-up the initial plans for Barcelona Energia. I asked the two of them to share their thoughts on the key goals underpinning this new municipal energy company:

Toni: Well, the first one I'd say... it's to get us as much clean energy as possible. So don't buy or produce energy, uh, from fossil fuels, that's the main thing. And the second one I'd say is to democratise the whole thing and allow citizens to produce and consume their own energy.

Pablo: Not only energy democracy but also, uh, economic democracy.... Well, we are aware that... that the control of the means of production are one of the keys to, uh, democratise the energy.

Thus, those initially developing the company had two ideas as to how this could begin to democratise the energy sector in Barcelona. Firstly, there was the intention of including those who work in the company and those who use its services on its governing board – an idea also backed by Switched On London and the Berlin campaign that inspired this. Additionally, various options for citizen ownership and control of new solar infrastructure were considered. On the first model, citizen-led cooperatives (for example Som Energia) would be invited to invest in, own and manage solar panels that would be installed on the roof-space of municipal properties, with some electricity generated sold on to Barcelona Energia, and some sold by the cooperative elsewhere. On the second model, Barcelona Energia would offer financial incentives in return for the installation of municipally owned solar panels on private roof-space, with electricity generated sold back to the company. On the third model, individuals would invest in, own and manage solar panels installed on their own roof-space, selling the electricity generated to Barcelona Energia. Or, alternatively, the final model considered was to be municipal investment in and ownership of solar panels installed on municipal property, without citizen involvement.²⁰

Like Switched On London, therefore, the idea here is a form of municipal energy that uses state institutions to offer novel forms of participation and citizen-control. Yet while Switched On London sees an activist coalition levelling demands around democratic municipal energy on the local state, Barcelona Energia is an official state initiative. As such, there is a clear sense in which Barcelona Energia cannot be understood through the lens of utopian demands deployed in the London case. However, my contention is that the more general thinking underpinning Weeks's (2011) work on utopian demands, pertaining to the relation between the concrete and abstract, as well as the present and the future, remains generative in understanding the political stakes of the Barcelona

²⁰ How these differing models have thus far materialised in practice will be discussed in Chapter 5.

Energia initiative. For just as the activists behind Switched On London sought to win a concrete reform in the present conjuncture as a means towards the future material realisation of more abstract and utopian democratic imaginaries, the architects of Barcelona Energia conceived of this initiative as a reform that might generate additional possibilities for radical changes in the future, again furthering the concretisation of more abstract and utopian goals.

For one thing, Barcelona Energia is imagined as the first step towards what is seen as a more transformative goal of re-municipalising the city's electricity distribution network. As I will show in Chapter 5, there is a shared sense among activists, politicians and employees of private energy firms in Barcelona that it is through the material infrastructure of the distribution network that power relations in the energy sector are principally contested and hegemonised. However, the electricity distribution network in Barcelona is owned privately by Endesa. A key question for both activists and progressive politicians working on energy in Barcelona, then, is that of how the electricity distribution network can be reclaimed. For those working on energy policy within Barcelona en Comú, the establishment of Barcelona Energia is a key strategy in this regard. In the words of Lluís (a Barcelona en Comú advisor on water and energy, the principal architect of the scheme) and Pablo:

So it's already, the cake is ready cut and given... right so, I mean, there is room for us in the supply, there is room for us in the generation, but there's no room for us in the distribution, right? And everybody supported distribution as the key factor, but it's a... we can run, I mean, the 60 yards hurdles, we can run the mile, but this is a marathon. So it's a long way to run to get back in the public sector the distribution. (Lluís)

This is the first step, the municipal companies and so on. The next step is the re-municipalisation of the grid. I think we have in mind all the key elements of the energy sovereignty, but we have to start with the first steps. (Pablo)

In Pablo's opinion, it is principally through its innovations in the generation field that Barcelona Energia could open up possibilities around distribution. As the distribution network is managed at present, any electricity generated must be sold back to the national wholesale market, foreclosing possibilities for people to directly use the electricity they generate through new

small-scale solar technologies, or to share this electricity with their neighbours. While this is a wasteful and costly process, for Pablo, it suits the incumbent distribution network operator Endesa, who have a clear business interest in inhibiting the expansion of decentralised generation to protect their market share. Pablo's hope is that if, through Barcelona Energia, people begin to generate their own electricity, the problems of the current forms of distribution management will become clear, galvanising popular support for the transformation of electricity distribution. In this sense, we see how one of the key architects of Barcelona Energia devised this scheme as a means of, in Weeks's (2011) terms, making epistemological and ontological progress – expanding critique, imagination and popular power – towards further, more radical changes.

Yet the possibilities for further changes opened up by Barcelona Energia are not limited to the energy sector. Commenting on the attempt to democratise Barcelona Energia, Lluís said:

We're designing a system where you have several kind of groups...the users, they can become a kind of users' cooperative, we also want to give voice to those who are also producers. So we can work together, take the decisions together. So we're building this. We want to build a new kind of governance: public-community, public-cooperative. Not public-private. But public-community, more or less, right? That's the goal for the governance, and in this body we can see users, producers and the municipality.

Here, we see the desire for this municipal energy initiative to enact the more general ideas of the commons and proximity described in the previous section. This echoes the extract from Eloi Badia's article above, in which Barcelona Energia is described as instantiating new forms of citizen participation and control. Through establishing Barcelona Energia with this narrative, the changes to the energy system that ensue mediate Barcelona en Comú's broader political project pertaining to the democratisation of the urban process. For Barcelona Energia is a flagship policy, one of the most prominent examples that Barcelona en Comú cite as evidencing their commitment to new forms of participatory urban governance. In short, through enhancing citizen participation and control

in the energy sector, Barcelona Energia was created with the goal of inspiring commitment and hope to a broader project of urban commoning.

In both London and Barcelona, then, urban energy networks are becoming deeply implicated in ambitious attempts to craft new forms of radical democracy through the transformation of the state – a process emerging, in both cities, out of the interplay of attempts to articulate a radical politics of energy transition on the one hand, and attempts to channel emancipatory politics into state institutions on the other. In the final section, I pay further attention to some of the spatial and temporal dimensions of the political processes at play here, arguing, in contrast to Swyngedouw (2010), that possibilities for new forms of radical politics might be found in the particularities of climate change.

4.6 Spaces and times of climate politics

Through the argument made thus far, which charts why and how progressive municipal energy initiatives have emerged in London and Barcelona, theoretical implications have been drawn out for debates around post-politics. These initiatives, I have suggested, give us grounds to rethink some of the key claims foregrounded within the post-politics literature, in particular, around the absence of alternative visions of the future in the face of climate change (Swyngedouw 2010), and around the death of radical institutional politics (Dikeç and Swyngedouw 2017). In this final section of the chapter, I want to make a further theoretical contribution by contesting the notion at the heart of Swyngedouw's argument: that there is something specific to climate change that helps produce the post-political condition. Instead, my suggestion will be that the temporalities and spatialities of climate change have the potential to open up new possibilities for radical politics. I begin with the question of temporality.

Swyngedouw's influential (2010) argument about the post-politics of climate change and, indeed, many arguments about climate politics more broadly (Malm 2016; Mann and Wainwright 2018), hinge upon claims around its temporality. Swyngedouw identifies a tendency within debates around climate change to focus on its unprecedented "urgency". Indeed, there seems to be good reason to think that many of the concepts and ideas that have come to frame

these debates – from "tipping point" metaphors to assertions that we have just a number of years or months left to act to avert climate "catastrophe" – have generated a sense of turbo-charged panic (Hulme 2008). Further, Swyngedouw's claim that the sense of impending ecological apocalypse that has ensued is often used to shut down political debate seems uncontroversial: as someone who frequently makes the case for anti-capitalist responses to climate change, I am well used to the rejoinder that radical political economic change must wait until after the planet has been saved.

Swyngedouw, then, pinpoints a dynamic that is very real. Yet my concern, based on some of the experiences described above, is that this is an incomplete picture. For another possibility is that the "urgent" timescales of climate change, rather than foreclosing radical politics, instead can lend themselves towards a particular form of this. This, indeed, is the argument of Mann and Wainwright (2018), whose challenge to the post-politics thesis contends that climate change is imbricated in the reconfiguration of the political, rather than its death. The challenge of an emancipatory response to climate change, they suggest, is that questions that have animated debate on the left for centuries – "the relations between sovereignty, democracy, and liberty; the political possibilities of a mode of human life that produces not exchange value but social wealth and dignity for all" – take on a particular "intensity" given the impending "ecological deadline" (p.57).²¹ My claim here is that this temporally-inflected (not determined) political shift is evident in the formation of the municipal energy initiatives discussed here.

I recall participating in a workshop organised by the New Economics Foundation think-tank (a member of the Switched On London coalition) to discuss their plans to produce radical visions of the future across a number of issues and sectors. It was intriguing to hear the workshop facilitator comment that activists working on climate and energy issues had far more of an idea of the

²¹ Mann and Wainwright (2018) sometimes write as if there is a fixed "tipping point" or set of pre-given "natural" limits that must be respected to prevent ecological collapse – an understanding of climate change persuasively critiqued by Swyngedouw (2010), Hulme (2008) and others. Yet this problematic understanding of climate change is not essential to their argument; for reasons set out in the following paragraphs, one might share this sense of urgency without holding such essentialising claims.

future they wanted to win than those working in other sectors such as housing and finance. My suspicion is that the fast-paced temporalities of climate change are a factor pushing proponents of emancipatory politics to think with greater detail about how their politics might be expressed in the building of low-carbon futures; how Mann and Wainwright's familiar questions, as alluded to above, might translate into concrete initiatives that offer a direction towards alternative socio-ecological arrangements.

Michael's sense, discussed in Section 4.2, that "we can't solve the climate crisis without having a different type of energy system" instilled a desire for "a rapid energy transition" and, in turn, for a politics that transcends resistance and can promise material transformation in the present moment. In this sense, the "urgency" of climate change and the necessity of a "rapid" response prompts a radical politics conducted in a specific register, starting from material changes that are possible in the immediate. One need not subscribe to an ossified conceptualisation of fixed natural "limits", assertions of pre-given "deadlines" to be revealed by "the science", or the post-political prioritisation of climate change over genuine political debate, to agree that the velocity with which decarbonisation occurs is highly important in limiting the injustices that will accompany global temperature rises (Malm 2016; Mann and Wainwright 2018). As such, decarbonisation is an impetus, if ever there was one, towards ensuring that emancipatory political endeavours translate into material change.

Indeed, substantial material changes are already underway. My interviews with energy industry practitioners and experts in both the UK and Spain have illuminated that the legislative, market and cultural shifts underway in the face of climate change are manifesting in significant shifts within the materialities of energy networks (see Chapter 1). Thus, there is a sense that interventions within these material processes of transition are necessary, right now, to avoid a situation whereby the transition happens without input from those coming from a radical perspective. As Mika put it to me:

Energy is transforming partly 'cause of climate change and partly 'cause of digital stuff, a mass transformation. So even without the Corbyn moment, it would be transforming itself, so we should be trying to shift it to something exciting.

Similarly, for activists in Catalonia, the fact that the materialities of electricity distribution networks are in the process of changing (see Chapter 1) renders the formulation of a radical position on the future of these networks important. As Lourdes from XSE put it to me: “The network needs to be transformed. It’s an urgent topic because if we don’t transform it ourselves they will transform it for us.” In sum, those seeking a radical politics of climate change fear being left behind by the rapid pace of technological change and, as a result, are beginning to make claims with a more direct engagement in the processes underpinning these shifts.

Thus emerge the kinds of politics described in the previous section, conceptualised with reference to the “utopian demands” theorised by Weeks (2011). Owing to the desire to achieve material changes within the energy systems of the here and now in ways that still speak to aspirations for broader scale radical change, activists and progressive politicians in London and Barcelona have sought to find winnable reforms that portend more utopian possibilities. The claim I am making here is that the temporal properties of climate change – more precisely the perceived urgency of this socio-ecological predicament – play an active role in shaping this particular approach to radical politics. The point is not that the “objective facts” as determined by climate science render this kind of politics as in any sense necessary or inevitable. For, as noted by Hulme (2008), climate science, on the one hand, offers no clear-cut objectivity and, on the other hand, can offer no guidance to the fundamentally ethical and political questions of how we *ought* to respond. Nor is the point that the temporalities of climate change determine emergent political strategies and claims. Rather, my argument is that the temporal dimensions of how climate change is manifested and understood are one of several factors that have come to shape endeavours underway in London and Barcelona. For the instigators of these endeavours, the accelerated temporalities of climate change do not foreclose radical politics. On the contrary, they help shape a form of radical politics that, owing to the imperative to achieve material changes in the present moment, is willing to

undertake strategic engagements with the pre-existing institutions that, at present, tend to mediate possibilities for these changes to come about.

For Swyngedouw (2014) and his interlocutors, this form of politics might well be dismissed as not truly political precisely because of these institutional engagements. Yet, as discussed in Chapter 2, this seems like an unhelpful and rigid conception of radical politics, premised upon an overly simplistic theorisation of the state that overlooks its constitution as a set of relations produced through struggle. If, following Abrams (1988), there is no such thing as the state beyond one particular moment within a broader ensemble of contested processes, what sense does it make to refuse to engage with this moment in favour of a dogmatic focus on the streets, neighbourhood, workplace or square? Pushing this logic further, we might hazard that binary divides between forms of politics enacted from outside and inside of state institutions begin to break down, once the fetishisation of these institutions is refused. Indeed, the argument made in the previous section, in which Weeks's (2011) work on utopian demands was deployed as an analytic frame for understanding both *Switched On London* (a "civil society" campaign) and *Barcelona Energia* (a "state" initiative), betrays this dialectical reasoning, seeking to draw out comparative relationships between the abstract and the concrete and the present and the future, rather than dwelling on differences resulting from alternate poles of the artificial state-society binary.

These state-theoretical reflections are returned to and deepened in the next chapter. For now though, I move from discussing the temporalities of climate change to its spatialities. More specifically, my interest is in the ways in which climate change is shaping new spatial and material dynamics within the energy sector. As described in Chapter 2, energy transition is a profoundly geographical process implicated in the transformation of socio-spatial relations (Bridge et al. 2013; Calvert 2015; Castán Broto and Baker 2018). One particular consequence, as discussed in Chapter 1, is that the imperative of decarbonisation is likely to lead to a more spatially distributed energy system (Seyfang, Jin Park, and Smith 2013). Accordingly, in Subirats's (2016) terms, the shift towards renewable energy sources makes possible energy systems that operate at greater "proximity" to everyday life. One important dimension of this is the urbanisation

of energy generation and the incorporation of an array of low-carbon energy technologies into the built environment of the city.

Mitchell (2011) notes that the impending decentralisation of the energy system often gives rise to a form of energy determinism, according to which renewable technologies are heralded as inevitably democratising, owing to their potential for more “localised” socio-ecological relations. Mitchell’s work, alongside the dialectical approaches advanced by the likes of Matt Huber (2013) and Mazzen Labban (2008), illustrates the folly of this kind of energy determinism. Yet, as argued in Chapter 2, spatial and material properties take an active role in shaping socio-ecological processes. Indeed, this, I contend, is true of municipal energy initiatives in London and Barcelona. With both *Switched On London* and *Barcelona Energia*, narratives of citizen participation and energy democracy/sovereignty are anchored, in part, by the possibilities for citizen management and ownership of solar panels being installed across the city’s roof space. These possibilities for citizen involvement are made possible, in part, by the dispersed spatial-material properties of the technologies in question. The point is not that these new spatial dynamics necessitate enhanced democratic involvement, but rather that the spatial characteristics of these new technologies are more conducive to these forms of involvement than is true of the large-scale and centralised technologies they replace.

The implication is that the materialities of energy networks are both constituted by and actively constitute the democratic experiments underway in both cities, illustrating the dialectical relation between energy and society described in Chapter 2 (Huber 2013; Calvert 2015). Further, we see that the spatial-material characteristics of nascent renewable energy technologies are helping to facilitate claims towards democratic renewal and attempts to craft new forms of emancipatory statecraft. In this sense, the spatialities of climate change or, more specifically, practices and processes of climate change mitigation within the energy sector, are lending themselves towards (albeit, to stress once more, not determining) novel experiments in radical democratic politics.

These democratic experiments, it should be stressed, are specifically urban experiments. In Section 4.5, I described how municipal energy advocates in

London and Barcelona have, in part, come to back municipal energy schemes on account of the scalar appeal of the city. For the city, these advocates suggest, is a space in which decision-making can be rendered as aligned with the rhythms of everyday life while simultaneously extending beyond this. As such, the city is conceived of as particularly well suited for endeavours to craft participatory democracy that allow for meaningful connections to both daily reproductive practices and the spatially extended processes within which these are enmeshed. Municipal energy advocates in London and Barcelona, then, recognise the connection between democracy and the city acknowledged in Chapter 2. Thus, the urbanisation of energy generation issued in by the process of low-carbon transition underway is seen to present an opportunity – by no means a guarantee – for democratisation.

To summarise the argument of this section, I have attempted to call into question Swyngedouw's claim that the discourses and practices associated with climate change help foster the post-political condition. Nothing that I have said provides grounds for disputing the pertinence of this claim in relation to some forms of climate change imaginary. Yet what I have tried to show is that the specific temporalities and spatialities of climate change can, on the other hand, provide opportunities for certain forms of radical politics. The temporal urgency of climate change, I have suggested, can shape a form of political expression oriented around strategic engagement with existing institutions in order to achieve rapid material changes. And the spatialities of energy system decarbonisation, I have argued, make possible the decentralisation and urbanisation of energy generation, in turn opening up possibilities for crafting new forms of participatory democratic control of the urban environment.

4.7 Conclusion

This chapter has made two interrelated arguments. Firstly, addressing the question of why municipal energy initiatives have emerged in London and Barcelona, I have argued that this can be explained through the interaction between nascent endeavours towards the transformation of the state, and pre-existing attempts to articulate and build radical visions and practices of energy

transition. In making this argument, I have sought to unearth the contested socio-ecological processes through which these municipal energy schemes have been constituted. Switched On London and Barcelona Energia have emerged out of various trajectories of struggle, from the global justice movement of the 1990s and its challenges to processes of privatisation and financialisation, through to more recent climate justice initiatives and their attempts to interfere in the operations of “fossil capital”; from the dramatic yet fleeting 2011 “movement of the squares” sweeping across urban centres ravaged by financial crisis and austerity, through to recent attempts to overcome the constraints of post-political governance through reclaiming traditional institutions of the party and state. More precisely, I suggested that in both the UK and Spain, ecological activists grew frustrated with the absence of imaginaries of the future and, accordingly, developed new narratives of energy democracy and energy sovereignty. And I suggested that it took the emergence of the Colau and Corbyn projects to provide the opportunities necessary for the translation of these visions into practice via municipal energy initiatives.

Through the course of making this largely empirical argument, a second more theoretically oriented argument has been teased out, addressing some of the claims made by Erik Swyngedouw and others pertaining to the post-politics of climate change. While Swyngedouw claims that radical urban politics now takes place at a distance to traditional institutions of state and party, I have shown that, on the contrary, municipal energy initiatives in London and Barcelona see endeavours to bring a radical politics of energy to the institutions. And whereas Swyngedouw contends that the temporalities of climate change imaginaries foreclose the development of alternative socio-ecological trajectories, my argument has been that in London and Barcelona, alternative trajectories are emerging, in part constituted by the specific temporalities and spatialities of climate change.

Having now explained why municipal energy initiatives have emerged in London and Barcelona, and having explored the ways in which these might offer the promise of a radical politics of energy transition, the question remains as to

the extent to which this promise is being realised. It is to this question that I now turn in Chapter 5.

5. Municipal energy in practice

From hopeful imaginary to ambiguous policy

5.1 Introduction

Julian Packer, the Low Carbon Investment Director for the Greater Manchester Combined Authority (GMCA), was visibly on edge when I met him. “People are not going to like what I have to say,” he told me, in a tone that was as anxious as it was defiant. It was November 2016, and Julian and I were preparing to begin a panel discussion on municipal energy at a conference entitled “Hacking the Energy System”, held within the grand hall of the University of Manchester Institute of Science and Technology (UMIST). I had been invited, on behalf of Switched On London, to make the case for our democratic vision of municipal energy. Julian, meanwhile, was to present an update on the GMCA’s previous fifteen months of research scoping out the potential for a municipal energy supply company in Manchester.

In mid-2015, the GMCA announced their interest in following Nottingham and Bristol by establishing their own municipal energy supplier. In response to this, and inspired by the recent formation of Switched On London, activists from Carbon Co-op – a small Manchester-based organisation and close ally of Switched On London who advocate for and implement low carbon energy services (and the organiser of the aforementioned conference) – had helped to establish a campaign called Energy Democracy Greater Manchester. This seeks to push the GMCA towards a radical vision of municipal energy premised upon a host of participatory democratic mechanisms of governance similar to those advocated in London. The initial response from the GMCA had seemed relatively sympathetic, and activists had met with Julian Packer, the officer responsible for the scheme, a few times to discuss ideas and progress on the scheme.

It came as something of a shock, then, when Julian announced, to the packed hall assembled at UMIST, that the GMCA would be scrapping all plans for municipal energy supply. “Believe me, when I first started working on this, I was

totally in love with the idea,” Julian told the audience, who quickly passed from bewilderment to belligerence. “But this is a low-margin, high-volume business, it needs significant market penetration, at least 100,000 customers. The risks are just too high and the rewards too low”.

And that was that. Over a year of research on the part of the local government body, and months of dedicated campaigning by Energy Democracy Greater Manchester – resulting in what had seemed to be a fairly convivial and constructive working relationship with Julian and others at the council – had apparently come to nothing. Why? Because the sums, we were told, did not add up. This, in short, was not a sensible market venture.

Seemingly satisfied that his job had been done, Julian wrapped up and briskly returned to his seat. It was my turn to take the stage. Surely what was needed here was to let rip. To call council bureaucrats to account for their lack of ambition. To urgently assert the case for municipal energy as a vital step towards democratic energy transition. But I did none of this, instead placidly delivering the presentation I’d planned in advance.

Afterwards, I felt dejected. Why had I given my opponent such an easy ride? I’d been working on municipal energy for a year previously, how had I not been able to find the arguments I needed? Part of the answer was that nerves had got the better of me, stopping me thinking on my feet. Yet I knew that this was not all that was going on. The bigger problem, I realised with alarm, was that I simply did not believe in municipal energy enough to defend it with the passion I wished to summon. I could not claim with confidence that my opponent had got his sums wrong, that this was not a “high-risk, low-reward” game. And, more worryingly, I lacked the stubbornness, the indignance, required to say: “Whatever the sums, whatever the risks, this simply has to happen!” I felt unable to make a compelling case for municipal energy as either viable within the constraints of existing political economic arrangements, or as urgently necessary in spite of these constraints. Matters, it seemed, were more complex, more ambiguous.

Whereas the previous chapter spoke to the initial optimism with which radical visions of democratic municipal energy were developed in both London and Barcelona, this chapter seeks to think through the complexities and

ambiguities of municipal energy as it has developed through official policy. In doing so, I address my second Research Question (see Chapter 1, Section 1.4), enquiring as to the extent to which the radical hopes of the previous chapter have been fulfilled (or not) through the translation of inspiring imaginary to practical implementation.

Through the course of doing so, I make several interconnected arguments. I argue, firstly, that the open dialectics of the state advanced in Chapter 2 is supported and, indeed, brought to life by the concrete experiences discussed. Second, I argue that reflecting upon these developments around municipal energy sheds light upon a scalar tension within the broader municipalist project, which sees endeavours towards the production of urban commons through the local state contingent upon a range of interconnected relations articulated at a range of scales. Finally, I argue that municipal energy initiatives in London and Barcelona go some way towards fulfilling their potential as utopian demands by virtue of opening new lines of critique and struggle around the relational constitution of "the state". Yet I argue that the radical potential of these initiatives is held back by their failure to challenge the process of market liberalisation. I end the chapter with the suggestion that a more transformative demand might be the abolition of any kind of competitive market in energy supply; yet that, still, municipal energy initiatives should not be dismissed as somehow "reformist" or, indeed, post-political.

The chapter begins by charting the ways in which democratic municipal energy has, in both cities, been translated from radical imaginary to official policy initiative. I then proceed to explore these experiences through conversations with state theory, arguing that they are best understood through the dialectical confluence of "prosaics" and "process". With this established, I proceed to pay detailed attention to the role of processes of market liberalisation in restricting the ambition of municipal energy initiatives. I end by pulling together the implications of the subsequent discussion for theory and praxis.

5.2 Municipal energy as official policy

Municipal energy initiatives in both London and Barcelona are very much works in progress. All I can do, therefore, is analyse events as they have unfolded thus far (a methodological issue explored previously in Chapter 3). This section of the chapter, then, describes the development of these schemes up until the time of writing. I begin with London, before moving on to Barcelona.

Energy for Londoners

In March 2016, just three months after launching, it seemed as though Switched On London had secured a major milestone on its route to victory. Sadiq Khan, at this point the Labour mayoral candidate and likely future mayor, committed in his manifesto to establishing a municipal energy company, to be named “Energy for Londoners”:

...a not-for-profit company providing a comprehensive range of energy services to help Londoners generate more low-carbon energy and increase their energy efficiency, support local and community energy enterprises, and buy clean energy generated across the city, using it to power GLA and TfL [Transport for Londoners] facilities. (Khan 2016b, 67)

The extent to which this pledge was a product of Switched On London's campaigning can only be assessed speculatively. However, it seems likely that the raft of media appearances, hustings questions, lobbying events and behind-the-scenes advocacy presided over by the campaign in the months preceding the manifesto announcement had considerable influence here.

As promising as this initial pledge seemed, it remained ambiguous. In particular, Switched On London activists worried that there was no clear commitment to a company that supplied energy, in addition to providing energy services such as supporting low carbon generation and energy efficiency measures. Thus, we set about advocating within Khan's advisory team to secure a commitment in this regard. This, we managed the proceeding month, through an article penned under Khan's name, written collaboratively by Switched On London activists and the mayoral candidate's campaign team. This article, published online on the Huffington Post, included a number of comments

exceeding the content of the manifesto pledge. Firstly, the article gave a stronger indication of interest in a municipal supply company:

In my manifesto I also commit to exploring whether we can bulk buy energy and sell it back to households. We will learn from Nottingham [Robin Hood Energy], and see what we can replicate in London. (Khan 2016a)

In addition, the article discussed a number of measures to be explored that positioned Energy for Londoners as more in line with the radical vision of municipal energy expounded by Switched On London. This included discussion of large-scale investment in offshore wind, alongside elected citizen board members.

Thus, when Khan was successfully elected in May 2016, Switched On London activists felt pleased that they now had a relatively promising basis of previous comments with which to hold the new GLA administration to account. In the months that followed Khan's election, the campaign devoted significant resources to advocacy work seeking to influence the GLA's thinking, meeting with GLA officials regularly, hosting officials at lobbying events and producing research briefings.

One of the primary focuses, at this point, became intervening in a technocratic debate pertaining to the form that Energy for Londoners would take. Those seeking to enter the energy supply market in the UK have two main options. Firstly, they can establish what is termed a "fully licensed" energy supply company by creating a new independent enterprise that is granted a licence to supply electricity and gas from market regulator Ofgem. Alternatively, they can opt for what is termed a "white label" company, a partnership with an existing fully licensed supply company that sees an institution brand and market a tariff that is provided by the "back-end" operations of the partner company (Cornwall Insight 2017). While Nottingham and Bristol councils established Robin Hood Energy and Bristol Energy as fully licensed companies, as did the coalition of Scottish councils and housing providers who established Our Power (see Chapter 1, Section 1.5), no further fully licensed companies have since been established by other UK local authorities, with Peterborough, Southend, Preston and Cheshire

East white labelling with independent private firm Ovo Energy, and Derby, Doncaster, Islington, Leeds and Liverpool white labelling with Robin Hood Energy.

For Switched On London, it is deemed essential that Energy for Londoners is established as a fully licensed supplier. This is because a white label does not allow the GLA the flexibility required to take the kinds of ambitious action on renewables investment, fair tariffs and democratic governance that Switched On London demands, with potential for this restricted by the pre-existing operations of the partner company. However, after around one year of back-and-forth between the campaign and the GLA, in August 2017, the GLA announced that Energy for Londoners would be established as a white label, while leaving open the option of moving to a fully licensed company in the future, a decision attacked by Switched On London as a "white label whitewash" (Switched On London 2017). At the time of writing, the GLA are proceeding with their decision, and are currently tendering for a white label partner. In my interview with Stephen de Souza, the GLA officer currently responsible for overseeing the development of Energy for Londoners, he told me that the company to be established will offer nothing in the way of investment or support for renewable energy, and will follow a "traditional model of accountability" without any direct involvement of energy users or workers. In short, at the time of writing, it looks as though Energy for Londoners incorporates none of the radical promise that Switched On London's initial demand embodied.

Barcelona Energia

Barcelona Energia launched as a supplier to Barcelona households in January 2019. It is supplying 100 per cent renewable energy, in accordance with the definition of "renewable energy" adopted by the Spanish National Commission of Markets and Competition. This includes energy traded from the wholesale market alongside that generated from PV installed on municipal property (currently 41 active sites) and from an anaerobic digestion waste-to-energy plant (Barcelona Energia 2018a). The company offers a range of tariffs, including fixed and variable rate offers and a special cheaper tariff for households who install PV

(Barcelona Energia 2018b). Barcelona Energia has been set up as part of a pre-existing waste management company owned by the municipality named Tersa. This is because national Spanish legislation prohibits the establishment of new municipal enterprises (legislation to be discussed further soon). As noted in the previous chapter, the company was able to become the municipality's supplier without a competitive tendering process, but as a result is bound by national legislation to abide by a ratio of 80:20 supply to municipal operations over private customers. As a result, the company is able to take on just 20,000 private households. This can only increase if the company boosts its public portfolio, either by supplying more operations within the municipality or else expanding to supply other municipalities within the Barcelona metropolitan area, still at a ratio of 80:20.

The result is that Barcelona Energia can only be integrated into the daily lives of a relatively small segmentation of the city's population. Yet when I met Barcelona en Comú energy adviser Lluís Basteiro for our second interview, taking place in February 2018, he remained optimistic, assuring me that high uptake was expected and that a second company could be created to split public and private customers if necessary:

All the hurdles, we're finding we're jumping it as we were planning... I think this is going to be one of the, uh, biggest hits of this municipal government... So we made a several, um... several polls to the population: What do you think about, to create or not, a public energy company? 95 per cent of the population agrees with the idea, no? We think we'll have a problem to stop with the 20,000 families, I think. And we imagine, if everything happens that we would like to, maybe we'll be forced to create a public company in the open market, yeah, because if we have a lot of pressure from the population, who wants to join this company, we'll have to create one company only for the municipality, and one public company for the population. So, we're still... we'll see. But we're thinking that maybe in two years we have to do it.

Pablo Cotarelo, the consultant who initially developed plans for the scheme, is less enthusiastic as to how it has been implemented, particularly frustrated by the lack of ambition on initial democratic aspirations. In our second interview in April 2017, he told me:

Well they [the city council] are, from my point of view, they are a little conservative on this point. They are betting for installations in public facilities,

not so much, not much in private and community facilities... I think for the energy democracy, you know, you have to push people to do it, people and communities, kind of social organisations, you have to be more courageous... I think they have followed the easy, the easiest thing to do because they announced that they doubled the solar energy in the city... I think that we are in a risky moment. Because the details are being defined right now... Maybe if they don't decide to give workers and people the right to decide in the public company it will be bad news.

The issue here is that despite repeated comments by Barcelona en Comú representatives pertaining to energy sovereignty and participatory control, at the time of writing, no concrete democratic mechanisms have been established or even agreed upon within Barcelona Energia. Thus, all new renewable generating assets are under traditional public ownership, without user or worker management. And plans for energy user and worker representation on the governing board have been dropped, with possibilities for an advisory association of energy users that would exist alongside a governing board being explored instead. The idea here is that this association would have to be consulted on by Barcelona Energia for key decisions, yet the extent to which Barcelona Energia would be bound to integrate concerns arising through consultation with this advisory association remains unclear.

5.3 Prosaics/process

In both London and Barcelona, there is a sense that initial aspirations for municipal energy as a means of enacting a radical energy politics have been somewhat frustrated (albeit perhaps to different degrees). To explore why, it will be helpful to return to some of the state theoretical insights of Chapter 2. Here, I sought to develop an understanding of the state informed by the broader open dialectical perspective of the thesis. This was achieved through putting the "strategic relational" account of Bob Jessop (1982, 1990b, 2007b) into conversation with Joe Painter's (2006) work on the "prosaic geographies of stateness". Through Painter, we come to see that "state effects" emerge through the quotidian, contingent and messy practices of those cast as both "inside" and "outside" of artificially imagined state institutions. Through Jessop, we are reminded that these prosaic practices are enrolled within processes stretching

across space and time. Considering these accounts together holds potential for an account of the state that allows room for both direction and disorder. Prosaic practices are afforded agency within state effects, yet are not rendered as arbitrary or ahistorical. Socio-ecological processes are analysed as productive of prosaic practices, yet at once produced by these practices.

My intention in the chapter is to use experiences within London and Barcelona to develop and enliven an open dialectical theorisation of the state, while simultaneously using state theoretical insights to better understand the concrete developments in question. To begin, I approach both cities through the lens of prosaics, excavating both what might be unearthed and what might be obscured through this approach, before arguing that this lens must be expanded through attentiveness to process.

Painter's (2006) approach of prosaics seeks to avoid reifying the state as a thing or actor in itself (see also Abrams 1988). Rather, "state effects" are analysed as the product of the practices of an assemblage of diverse actors traversing the imaginary line between state and society (see also Mitchell (1991) and Gupta (1995)). This is very clearly visible in both London and Barcelona. In London, it was Khan's 2016 manifesto pledge and election that provided the impetus for the GLA to begin exploring options for municipal energy. But this pledge was, in turn, shaped in consultation with Khan's advisory team and, as described in the previous section, with influence from Switched On London, at times as directly as inputting on public opinion pieces. Following Khan's election, responsibility for the scheme has been delegated to civil servants, who in turn employed an external consultancy firm named Cornwall Insight to undertake a feasibility study which, ultimately, was the decisive factor in opting to create a white label company (see Cornwall Insight 2017). In Barcelona, a series of public statements by Barcelona en Comú representatives announced the intention to create Barcelona Energia, a decision shaped by activist initiatives that Barcelona en Comú politicians once participated in (see Chapter 4). The process of bringing this idea to life has enrolled both advisers within the party, civil servants within the council and external consultants such as Pablo Cotarelo. We are reminded, therefore, that there is no singular subject called "the GLA" or "Ayuntamiento

Barcelona" who, itself, has made the decision to develop municipal energy schemes in one way or another (Abrams 1988). Rather, the scheme is taking shape on account of the practices of multiple interlocutors acting from either side of the artificial state-society divide.

There is, moreover, a sense in which the practices in question seem to betray the messy, contingent and disorderly qualities that Painter's (2006) "prosaics" analytic intends to capture. Part of the point of this approach to the state is to foreground the agency of quotidian practices in the formation of state effects – practices that might otherwise go unnoticed. In London, the decision from GLA officials to opt for a white label company was made, primarily, on the basis of the aforementioned Cornwall Insight report, a highly technical document likely only ever read by a handful of people. The decisive factor within the report was timescale: a white label could be delivered quicker than a fully licensed company. The methodology here was to select a number of criteria against which different options for establishing Energy for Londoners could be compared and, ultimately, numerically ranked. The speed of delivery was one of four factors deemed to be "priority" and, consequently, double-weighted (a decision explored in further depth soon). In this sense, we witness the production of state effects through a set of bureaucratic practices that might easily be overlooked and, it would seem, might easily have played out differently.

The prosaic practices of state officials appear to be important in shaping state effects across both municipal energy schemes. In the Catalan context, Barcelona en Comú councillor Tatiana Guerrero, a former activist with la Alianza Contra la Pobreza Energética and the politician who now leads the council's efforts on energy poverty, told me that a key challenge has been relations between politicians and civil servants:

I think the problem here isn't just about legislation, it's also about the civil servants. Some of them have been working here for years and it's impossible to change their way of doing things. If the people that work for you don't want to change then you've got no chance. It's even harder if you're a young woman... I think the main problem has to do with the fact that politicians come and go from the Council but the civil servants stay working there. When a politician comes along and tells them to change the project they've been working on for the last

four years, that must be really annoying. They'll stand up for their project and their way of doing things because that's their job.

Tatiana's comments acknowledge the impact of spatially extended processes such as national legislation but invite us to focus on more "prosaic" questions of the forms of contestation and agency enacted by local state officials. Her reflections illuminate tensions and tendencies in this regard that might be easy to ignore, from the impact of age and gender on interpersonal relations between different "state actors", through to state officials' desire to protect pre-existing projects and working patterns.

Building on Guerrero's insights, the everyday practices and perspectives of civil servants were operative in the dampening of democratic ambitions within municipal energy schemes in both cities. Even when relations between Switched On London and the GLA were at their most convivial, the officials we were engaging with showed very limited interest in the democratic aspects of the demands we advocated. It seemed to us that the officials responsible for creating Energy for Londoners feared that handing over control to energy users and workers would make their jobs more complicated than they desired. Discussing her feelings on democratic participation in an interview that took place in January 2018, after she had left the GLA, Brooke Flannagan – formerly a GLA policy officer responsible for developing Energy for Londoners – told me:

It does slow down decision-making. And it's kind of not normal practice to really factor in a lot of community involvement... It's kind of like trying to turn a ship around really quickly if you've got different input coming in on a day-to-day basis... you need to, for energy companies you need to set them off in the direction that you want them to go in at the beginning because it takes a lot to move them.

The implication here is that democratic participation within the company's day-to-day operations would slow things down unhelpfully. Interestingly, the temporal dynamics of post-politics appear to surface here, with the need to make quick decisions being used to shut down genuine democratic disagreement in favour of expert management (Swyngedouw 2010).

Stephen de Souza, Flannagan's replacement in the role of GLA officer responsible for Energy for Londoners, explained that the democratic credentials of the company will not exceed "traditional" models of accountability within local government:

You know, I suppose it's sort of a traditional model of accountability in that Energy for Londoners, you know, would report to the Mayor and the Mayor is accountable to the assembly.

He continued to draw a distinction between democratic involvement in energy supply, and in the management of physical infrastructure:

Stephen: I guess in terms of people really having a stake in them you're going to, sort of, think of that as more something for physical assets like generation or the network... Because you know, supply itself is a, sort of, you know it's not really a, it's sort of, a physical paper relation...

Q: Yeah, so what's the difference for you? Why do you think physical assets lend themselves more to that direct kind of participation than the supply question?

Stephen: I suppose it's, sort of, thinking about a, kind of, solar panels, or maybe not so much in your own environment, a wind turbine, or a, kind of, CHP [Combined Heat and Power] plant in a block of flats, just something that people can identify with.

Accordingly, the contingencies of this official's understanding of what democratising energy might mean are illuminated as one factor operative within the absence of democratic ambition within Energy for Londoners.

This absence became particularly striking as my interview with Stephen continued, with him reflecting on the idea of "the capitalist version of participation":

I suppose if you talk to somebody like Bulb Energy, who I hope will bid to us [in the white label tender], I mean, they would say they spend very little or even nothing on advertising, and that they have... they work a lot through social media and not much on traditional advertising but they also have a referral team so that if you refer your mates you get some money off your bill. And I don't know if that's the capitalist version of participation... it's interesting.

Here, the claim is that new supply market entrant Bulb Energy's social media marketing scheme, in which existing customers earn a £50 discount from recruiting their social media contacts to the company, is how democratic participation in the energy system might translate within capitalist social

relations. This makes for a fascinating yet frustrating departure from Switched On London's demands on energy democracy, which in the previous chapter I argued portend “utopian” possibilities of radically democratic, potentially post-capitalist, social institutions.

Likewise, in my interviews with civil servants working on Barcelona Energia, the importance of their practices and perspectives in the formation of this particular state effect was made clear. Manuel Torrent and Irma Soldevilla, Technical Director and Project Director of the council's Energy Agency, agreed that the principal change in energy policy since the election of the new Barcelona en Comú led administration is that, in Manuel's words, “the citizen is in the centre of the energy system”. This echoes the words of Eloi Badia (2017), Barcelona en Comú's councillor responsible for energy policy, in the latter's writings on the potential of Barcelona Energia to deliver energy sovereignty (see Chapter 4). However, whether these civil servants' understandings and implementation of this idea preserves the intention behind Barcelona en Comú's vision is unclear. For both Manuel and Irma, situating the citizen at the heart of the energy system translates as the council offering more information to citizens with the goal of facilitating more informed decisions about changing their “personal habits”, an apparent departure from more radical claims around shifting relations of ownership and control within the material operations of the sector:

Manuel: Putting the citizen in the middle of this, our strategy, it's really new, no.

Irma: Yeah, it's new, because for us, we thought we would work on tools to allow the citizen to improve its energy management. If... if they want to generate energy we help the citizen to generate renewable energy. Barcelona Energia can help the citizen to, um, to produce energy and to consume better...

Manuel: It's giving a lot of information to the citizens...

Irma: ...I give you the information, and you decide if you want to... to change your personal habits, or not, okay...

Similarly, the importance of the practices and perspectives of officials in restricting the ambition of Barcelona Energia is made clear again in conflicts that have emerged between Barcelona en Comú politicians and advisers on the one

hand and, on the other hand, employees of TERSA, the waste management company within which Barcelona Energia is being hosted. Lluís Basteiro, the Barcelona en Comú adviser responsible for developing Barcelona Energia, told me that employees within TERSA were "a little bit narrow-minded" about the novel idea of energy user and worker participation in Barcelona Energia's governance saying that this is "not because they are evil but because it's something new, this is brand new, right?" The implication here is that reticence on the part of TERSA employees to incorporate new ideas around governance and participation has been a factor that the architects of Barcelona Energia have had to reckon with in their attempts to integrate these ideas.

Thus, the focus on officials illustrates that, as Painter suggests, the messy and contingent perspectives and practices of these actors is important in shaping state effects. However, an analysis that stops here would be troublingly incomplete. Firstly, we need to ask why state officials adopt particular perspectives and practices. Brooke, Stephen, Manuel and Irma's comments must be understood in the context of the "'taken for granted' terrain" of the common sense "conceptions and categories" specific to capitalist social relations (Hall 1986, 20). For Stephen, there is a struggle to imagine what participation in the energy system might look like beyond participation as a market actor, in which one's agency is limited towards recruiting customers to a private firm. Manuel and Irma's translation of the radical discourse of energy sovereignty, meanwhile, is imbued with an ecological modernist commitment to the top-down construction of ecological citizen-consumers (Luke 1995; Agrawal 2005). Accordingly, we see how the prosaic practices enacted within state effects reproduce certain sets of geographically and historically specific social relations – an insight that Painter's (2006) account, with its emphasis on the disorderly and the arbitrary, seems to obscure.

Indeed, there are a host of processes moulding state effects in various ways – not only through the shaping of officials' practices – which Painter's account leaves under-theorised. Or, put differently with respect to the present question, we cannot understand the development of Energy for Londoners and Barcelona Energia through the lens of prosaics alone. This account must be complemented

through an exploration of the spatially and temporally extended processes within which prosaic practices are dialectically situated. It is to this task that I now turn.

5.4 Municipal energy beyond the prosaic

Firstly, I return to the GLA's prioritisation of rapid delivery in the decision-making around the form that Energy for Londoners should take. To understand this as random or entirely contingent would be extremely naïve. GLA officer Stephen de Souza, currently responsible for overseeing Energy for Londoners, told me:

So I can't remember the exact timescales in the Cornwall report but it's something like a, sort of, year, year and a half quicker to partner than to set something up from scratch. So that's a benefit worth having in terms of the Mayor wanting to deliver the benefits sooner rather than later.

In fact, no specific timescale is cited in the report other than references to late-2019 being too late for the GLA's objectives to be met. What seems likely – and what Stephen alluded to, while stopping short of saying directly – is that the Mayor's priority was a short-term output that could be mobilised to enhance his chances of re-election in May 2020.

What becomes clear here is the impact of the short-term imperatives of local electoral politics on decision-making around municipal energy and the production of local state effects more broadly. In turn, we see how the agency of those influential in the decision to white label – from the mayor to civil servants and external consultants – was very clearly directed by the political processes they operate within (Jessop 1982). This was clear in Barcelona as well. Manuel and Irma – the civil servants mentioned above – worried that Barcelona en Comú politicians were over-selling the potential of Barcelona Energia. As Irma put it to me:

Barcelona Energia is not the solution for all the problems about energy in Barcelona... Politicians say the idea or the big idea but then when you are working on it and you analyse technical and social barriers, it's another reality.

In Chapter 4, I showed how Barcelona Energia is a flagship policy through which Barcelona en Comú are seeking to instantiate their municipalist agenda. As such,

public perception of the scheme in the city is an important question for their prospects of re-election. In the words of one employee I interviewed from energy consultancy firm Ecoserveis: "It's a short-term vision, short-term politics. You need results in the short-term."²² The implication being that, as with Energy for Londoners, Barcelona Energia's development is, in part, contingent upon local electoral politics. Thus, just as Chapter 4 positioned the temporalities of climate change as one of multiple determinants within the development of municipal energy schemes, in this chapter, the temporalities of local electoral politics emerge as a further factor in this regard.

Yet municipal energy schemes are also shaped by processes extending beyond the confines of the urban environments in which they are being developed. This is clearly true regarding Barcelona Energia's formation within waste management company TERSA. Spanish national law introduced by the PP government in 2013 prohibits the formation of new municipal enterprises. This was a law seeking to curtail municipal expenditure, as part of a broader package of austerity measures introduced to translate the terms of the 2012 EU bailout of Spanish banks in the midst of the financial crisis. Here, then, EU austerity and its implementation via a specific nationally determined legal architecture is operative in shaping the development of municipal energy. These national and international processes, coming into relation with the more prosaic agency of TERSA employees and their resistance to new ways of organising (as explained previously), have resulted as one factor restricting democratic ambitions within Barcelona Energia. Further, the integration of Barcelona Energia within TERSA presents challenges for Barcelona en Comú's ecological aspirations, because TERSA currently operates an anaerobic digestion waste-to-energy plant, burdening Barcelona Energia with a form of energy generation deemed undesirably polluting by the architects of the municipal energy initiative and by ecological activists in the city who are criticising the municipality on this front. In this sense, we see ambition on municipal energy curbed through national legislation

²² Ecoserveis are an energy services consultancy firm. They have had no direct involvement in developing Barcelona Energia. The comment here is one consultant's personal analysis of the situation discussed.

shaped through struggle between various different state and non-state institutions of governance.

Indeed, I want to suggest that the enrolment of municipal energy schemes within spatially and temporally extended processes is a pivotal factor constituting, and in important ways inhibiting, these schemes' development. Once again, Hart's (2017) work on relational comparison is generative in deepening the analysis being pieced together across contexts. A starting point for relational comparison, in this instance, is to understand the ways in which Energy for Londoners and Barcelona Energia are entangled within the process of market liberalisation, a process at the heart of the neoliberal reform of energy systems across Europe and beyond. The UK's supposedly impending departure from the European Union notwithstanding, energy policy in both the UK and Spain has for the past two decades followed similar pathways in accordance with EU liberalisation directives which oblige member states to introduce market competition within the energy sector (Langsdorf 2011). The inspiration here, as described in Chapter 1 (Section 1.5), is the so-called "British model" fashioned through reforms introduced by the Conservative Thatcher and Major governments of the 1980s and '90s (Thomas 2006; Pearson and Watson 2011). As outlined previously, this sees the formal separation or "unbundling" of the sector into generation, transmission, distribution and supply; the privatisation of formally public enterprises; and the introduction of competition within generation and supply through the creation of new markets in both. Far from the frequently made claim that neoliberalism sees the retreat of the state or the "deregulation" of the market, in this instance as with many others, EU and national legislation were at the heart of a process of what Harvey terms "accumulation by dispossession" whereby formally public assets were transferred to private hands which, through the creation of new markets, constituted a "fix" for the crisis of accumulation of the previous decade (Harvey 2003; Mansfield 2007; Ekers and Prudham 2018a, 2018b).

A number of the ways in which municipal energy initiatives in both cities are restricted in their scope and ambition can be traced back to this shared process of liberalisation – a process that, following Hart (2017), I seek to show is

constituted out of the concrete specificities of distinct historical geographies. It is to unpicking the various ways in which liberalisation is holding municipal energy back, which I now turn.

Distribution networks

Firstly, the unbundling of the energy system in both the UK and Spain means that no singular initiative or process can "re-municipalise" energy. Rather, changing relations of ownership across the system will require distinct strategies for each formally separated field, from supply to transmission. Accordingly, municipal energy initiatives in the UK and Spain are at present being primarily addressed around generation and supply only, and do not include measures to reclaim control of the material infrastructure of electricity and gas distribution networks. For in generation and supply, competitive markets exist, in which local government companies can compete alongside anyone else. Whereas with the networks of pipelines, pylons and cables that constitute distribution networks (formerly publicly owned regional monopolies) these were privatised and sold to private firms, who in the UK and Spain retain monopoly ownership on the basis of indefinite contracts (Langsdorf 2011).

In Barcelona, la Xarxa per la Sobirania Energètica (XSE) is campaigning for the re-municipalisation of the electricity distribution network, arguing that this is necessary in order to socialise the revenues and to have more strategic control over key aspects of the sector such as grid connections for new renewable generators, cut-offs for low-income households and the management of data flowing through increasingly digitalised infrastructure. Lluís Basteiro, Barcelona en Comú's energy advisor, agreed, telling me in our first interview that "everybody supports distribution as the key factor", as he pointed to a whiteboard on his wall in which the word "distribució" was circled and centred. As described in Chapter 4, part of the thinking behind Barcelona Energia is that engagement with generation and supply might open up possibilities for reclaiming distribution from the incumbent network operator Endesa in the future. While XSE argue that the municipality has a number of legal and financial options to explore in this regard, Lluís is by no means optimistic on this question:

Now it [the energy sector] is liberalised. And it's easy to get in the generation sector. It's more or less easy. It's more difficult but it's possible to get in the supply sector. But it's almost impossible to be in the distribution sector... it's already, the cake is already cut and given.

This, then, is one significant sense in which the processes within which the local state is entangled – more specifically, in this instance, the market liberalisation reforms imposed by the EU – impact on municipal energy schemes. Specifically, here, we witness unbundling constraining agency via the creation of distinct siloes within the sector, which must subsequently be addressed in different ways.

The same is true in London. Here, having traded hands several times since privatisation in 1990, the city's distribution network is currently owned by UK Power Networks, itself owned by the CK Group, a Hong Kong consortium of investment and infrastructure funds (UK Power Networks 2019). Unlike Lluís Basteiro, the GLA's Stephen de Souza showed little interest or ambition on this question:

It's [the distribution network] not something that we have a massive role in. I think in a different political climate you can imagine that changing, but yeah I think at the moment people are very conscious that things are changing, and you know, technology will enable a lot of new things, but we are perhaps not quite there yet.

The "different political climate" alluded to by Stephen is perhaps a nod to recent comments made by the UK Labour Party as to their aspiration to take distribution networks back into public ownership (Labour Party 2017b). Whether or not this will happen, of course, remains to be seen.

Two insights emerge from thinking across cities on this question. Firstly, Lluís's desire to find a way to re-municipalise distribution – and how this contrasts to Stephen's disinterest – illuminates the difference of ideological perspective between these two officials. While we have no way of knowing whether Lluís's ambitions around distribution will be met, what becomes clear is that the process of energy market liberalisation that connects London and Barcelona is in part constituted through the practices of municipal officials, which may or may not arise as sites of contestation. Second, the point is not that market liberalisation renders the re-municipalisation of distribution impossible;

as, in the future, the city council in Barcelona or a future Labour government in the UK may establish through pursuing the option of expropriation or otherwise. Instead, the issue is that the liberalisation process forces disjointed thinking and action: endeavours towards democratising the energy sector as a whole are forced into constraining silos of generation, transmission, distribution and supply, each of which is shaped by specific relations and, subsequently, calls for specific strategies for change. Switched On London activists, for example, decided in the very early stages of the campaign to limit ambitions to supply alone, with a win in the distribution sector seeming too unlikely for now.

Tariffs

The process of market liberalisation also has implications for the capacity of municipal energy schemes to meet their objectives of tackling energy poverty through the provision of affordable tariffs. One consequence of liberalisation is that supply companies have little scope to determine the tariffs they offer. Firstly, tariffs are partly contingent upon the price at which companies buy electricity and gas on the wholesale market. And the very existence of a wholesale market in electricity and gas – in which generators compete against each other to sell their energy on to suppliers – is a product of liberalisation, before which generation was a publicly operated monopoly enterprise. Moreover, the way that liberalisation has taken shape in the creation of a competitive supply market is through a market strictly bound by national regulation, as deemed necessary to avoid "market failure". In this sense, nationally set taxes, levies and costs make up the bulk of the tariff offered by supply companies (Cornwall Insight 2017).

Owing to the way that liberalised markets have been designed by governments in the UK and Spain, then, supply companies have limited powers to control the tariffs they set. Moreover, far from operating as the level playing field that free market advocates claim, the specific design of the supply market in both contexts disadvantages new, smaller entrants such as municipal schemes. Steve Battlemuch, a Robin Hood Energy board-member, and one of the Nottingham Councillors who co-founded the company, commented:

I think one of the common misconceptions about a not-for-profit company like Robin Hood Energy is that people think it'll ultimately be the cheapest on every market. And you just... the energy system just doesn't work like that... what you find is the big six, who have got around 80 per cent of the market, have got so much buying power that they can in effect drive a lot of the smaller players out of the market, just by loss-leaders.

The issue, then, is that the size of dominant supply companies allows them to offer low tariffs, which, over time, are raised. Although smaller suppliers pit themselves against large private firms by offering a consistently fair, transparent and simple tariff, they struggle to offer the cheapest.

Risky business

Because of the creation of a competitive market in energy supply in both the UK and Spain, municipalities cannot simply "re-municipalise" energy supply but, rather, are able only to introduce a new supply company to a pre-existing market. As a result, new municipal supply initiatives are market ventures and, hence, associated with a certain degree of financial risk. This question of market risk has been pivotal in the development of Energy for Londoners and, in particular, the decision to opt for a white label partnership, rather than to establish a new fully licensed supplier.

The issue of timescale discussed previously was not the only factor at play in this decision. The concluding recommendation of the Cornwall Insight (2017) report, on which the decision to white label was based, was as follows:

Therefore, on balance, we believe it might be possible for EfL [Energy for Londoners] to enter the market in late 2019 as a fully licensed supplier, but we see the risks of meeting this timeframe as being too high to recommend this option. White label plus provides a means of delivering the GLA's objectives around fuel poverty and providing fairer tariffs, but with lower commercial risks and shorter delivery timescales. (P.17)

The argument of the report, in sum, is that while fully licensed companies are better placed than white labels to deliver on a range of outcomes including cheaper tariffs, low carbon investment, revenue opportunities, and action on energy efficiency and fuel poverty, white labelling is a less risky option. London's size and status, it is contended, do warrant a fully licensed company despite the

increased costs and risks. But because the GLA's priority is to establish a company as soon as possible, the risks of establishing a fully licensed supplier become too prohibitive within the tight timeframe. Thus, alongside the question of timescale, the “risks” of entering the liberalised supply market were a decisive factor in the decision to white label.

Firstly, these risks emerge because the operations of supply firms are contingent upon the fluctuations of the wholesale markets created through the liberalisation process. From the financial crisis of 2008 until 2016, electricity and gas prices on the wholesale market were consistently low. This made entering the supply market a relatively low-cost high-margin operation (Cornwall Insight 2017). A result of this has been an influx of new smaller entrants into the supply market. Prior to 2011, the UK's "big six" suppliers had a 99 per cent monopoly in this market. Yet since 2011, the big six's market share decreased to 84 per cent in October 2016, at which time there were over 50 suppliers in operation, with 21 new suppliers entering the domestic supply market in 2016 alone. This new burst of competition has meant declining profitability, one important factor in the “risks” referred to by GLA officials and the Cornwall Insight report (Cornwall Insight 2017).

This is an issue compounded by recent changes in electricity and gas wholesale markets, which have become increasingly volatile and have seen sharp price hikes since 2016 in the wake of the Brexit vote. Brooke Flannagan, energy sector consultant and ex-GLA officer responsible for Energy for Londoners, told me that this was a key factor in the "risks" that inhibited the GLA's decision-making:

The wholesale prices changed. For quite a few years up until that point, all the... Nottingham, Bristol, all the... Cornwall... all the other experts in the market would tell you the same thing as well, that there'd been a very benign market and wholesale prices for quite a long time, for several years, and then a few months or so after we started looking into it, that sort of changed, meaning that they became a lot more volatile, a lot higher.

Brooke explained that this wholesale market volatility has increased operating costs, in turn adding an extra layer of risk. For it has now become accepted wisdom that companies operating within the supply market must develop strong

"hedging" strategies, purchasing their energy in advance on futures markets, requiring increased capital to trade with:

You also had a situation I guess because of those wholesale prices where as a supplier you needed a very strong hedging strategy. Up until then, because the market wasn't volatile it was quite easy to just buy it on the day-ahead market and things like on the spot market, you didn't need to necessarily have a strong hedging strategy in place...If you're hedging you're going to have to tie up a lot more capital.

Accordingly, municipal energy supply companies have become enrolled within financial markets, complicating market entry even further and adding an additional layer of relations within which state effects are now entangled.

The risks of the wholesale market are compounded by those emerging from the "uncertainties" created by the government initiatives designed to rectify the "failures" of the liberalised market alluded to previously. Stephen de Souza commented:

So we know with smart meters that the industry as a whole is behind on the kind of government mandated programme, and it's not quite clear what is going to happen there but that is a kind of risk that the supplier is conscious of and we were going to have to... a new supplier might face that risk in a more acute way because there will be a shortage of smart meters and there are already companies out there that are willing...you know, bought them up... Plus the price cap again, you mentioned that's another uncertainty to deal with, so we thought there was quite a lot of risk out there and the way to deal with it would be to partner with an existing supplier.

Here, Stephen mentions two issues. Firstly, energy supply companies are responsible for the government's deployment of smart meters, legally mandated to ensure all of their customers transition to smart metres by 2020 (see: Bulkeley, Powells, and Bell 2016). The fallout from this has been a shortage of meters, with new supply market entrants struggling to buy these affordably. Further, the government's decision to cap prices for prepayment meter customers – alongside repeated commitments from both major political parties to introduce price caps across the board – has left potential market entrants unsure as to the conditions

that they may be operating in, increasing the risks of proceeding (Cornwall Insight 2017).²³

Thus concludes, then, my account of the ways in which entering the supply market was deemed as a risky market venture in London – a key factor in the decision to opt for a white label company. What, then, of the question of "risk" in Barcelona? The way that this surfaced most clearly in my discussions with officials here was around the failure to include energy user and worker representation on the board of Barcelona Energia. Lluís Basteiro professed to be constrained by Catalan legislation regarding the operations of legally constituted cooperatives, which stipulates that cooperatives must be governed on the basis of "one-member-one-vote". While Lluís had initially been interested in possibilities for constituting Barcelona Energia as a cooperative including users, workers and the municipality, he sees one-member-one -vote as an inappropriate basis for decision-making, as he is reluctant to give away so much control from the municipality:

I'm the one who has all the pressure, everything, so I think it's not fair, I'm not asking for 99 per cent of the control but 49 is fine, even 40, 45 something like this. And with the Catalan cooperative law, it's not easy to find that.

This was a worry shared by Barcelona Energy Agency civil servant Irma who, commenting on the possibility of citizens having voting rights within the company, said: "It's strange because they are deciding or they have a vote and have no risks. The board of directors have risk and the citizens not." Here, then, the aversion on the part of local state officials towards giving away control is couched in concerns around "risk". The worry is that entering the supply market brings financial and political pressures to the municipality, which leave municipal officials cautious as to offering decision-making power to those deemed to have no direct stake in managing these risks.

This notwithstanding, those developing Barcelona Energia seemed far less concerned about the question of risk than the officials behind Energy for

²³ UK policy debates around the "risks" pertaining to municipal energy came to a head recently, with the announcement in January 2019 that Scottish public energy coalition Our Power (see Chapter 1) had gone out of business, citing increased wholesale market volatility and the impact of price caps (alongside billing issues) as the problem (BBC News 2019).

Londoners. This, in large part, is because in Barcelona, measures have been taken to reduce market risks – measures that have not been taken in London. Firstly, a key aim for Barcelona Energia is to facilitate the expansion of new solar generating capacity in the city. Through forging contracts with new solar generators, Barcelona Energia will become less dependent upon the fluctuations of the wholesale market. Secondly, because the company will primarily be supplying municipal enterprises – acting as the default supplier free from the pressures of a competitive market – it has a pre-established customer base, mitigating concerns about low uptake from energy users.

For Syed Ahmed, a London-based energy sector consultant, similar risk-mitigation strategies were very much available to GLA officials:

There is Transport for London, which is a big power supplier. Couldn't they form the bedrock of actually looking to provide the power from Energy for Londoners?... Plus your 33-odd boroughs, you could look to see if Energy for Londoners could work for them. So there is still a big chunk of energy supply in London which will be there for time immemorial, and which Energy for Londoners could vie for.

That GLA officials failed to explore these options and became consumed by risk aversion, is, for Syed, a testimony to a lack of ambition and imagination on their part. In his words: "The team just has to be a lot smarter".

Thus, we are brought back to consider the importance of everyday agency in the production of municipal energy initiatives and state effects more broadly (Gupta 1995; Painter 2006). While municipal energy initiatives in both schemes are connected by shared processes, in particular market liberalisation, they have taken shape in quite different ways. Although I have raised serious questions about the extent to which Barcelona Energia lives up to the democratic aspirations with which it was initially associated, there is no question that it is a more ambitious and meaningful initiative than Energy for Londoners. Unlike Energy for Londoners, Barcelona Energia sees the establishment of a new independent initiative, whereas the London scheme sees a pre-existing endeavour marketed to a new London customer base. Additionally, the Barcelona scheme is overseeing a considerable expansion of new renewable generating capacity, whereas the London initiative has no such plans. Finally, in Barcelona

and unlike London, some degree of interest remains pertaining to democratic participation within the scheme, with the options of a users' assembly and community owned and managed solar infrastructure still being considered.

These diverging levels of ambition can be traced, at least in part, to the agency enacted by new politicians and advisors entering local state institutions in Barcelona in an attempt to transform the production of state effects. While the agency of politicians and officials in both contexts is restricted by the implications of shared processes such as liberalisation – implications such as the positioning of energy supply as a market endeavour and, hence, a venture subject to certain "risks" – this does not happen in a deterministic or uniform fashion. Rather, liberalisation is a process produced through the messy and contingent practices behind national policy-formation, articulating alongside other processes such as low-carbon transition and endeavours to craft new experiments in municipal democracy. Within this confluence of multiple different processes and practices, there arises opportunities for contestation and, as such, differentiated experiences as we see in London and Barcelona.

Enforced competition

The final way in which I suggest that market liberalisation has shaped municipal energy initiatives in London and Barcelona is the impact of government policy measures designed to enforce competition. Thus, once again, the production of liberalised markets through state effects is foregrounded.

In the UK, national competition law obliges all local authorities to undergo a competitive tendering process in selecting their energy supplier for their own internal operations. Therefore, authorities that establish municipal energy companies are not allowed to simply hand over their supply contracts. Rather, municipal companies must compete alongside other suppliers to win the tender. Thus emerged the case of Bristol Energy, which in April 2018 was dropped as the supplier for Bristol Council, after private firm British Gas received a higher ranking in the tendering process (Bristol Post 2018).

In Spain, the legislative context is somewhat different. As explained earlier, competition law here allows municipalities to establish companies that

become their default internal energy suppliers without undergoing a competitive tendering process, on the proviso that these companies are limited in their capacity to supply to private households and businesses at a ratio of 80:20 municipal to private customers. In both contexts, then, but in differentiated ways, the legislative initiatives necessary to enforce competition have restricted the operations of municipal supply companies.

This is true in a further sense in Barcelona, with regards to possibilities for the forms of public-community partnership initially imagined for the ownership of new solar infrastructure. Initially, as described in Chapter 4, Barcelona Energia was venerated as the first step towards the re-configuration of the relationship between capital, state and civil society in the energy sector, challenging the dominance of large corporations through the formation of a new type of state institution with maximal citizen accountability and control. However, by the time of our second interview, Lluís indicated that partnerships with citizen associations for the ownership of new photovoltaic (PV) panels have proved problematic, and that partnerships with the corporations the initiative set out to challenge are not being ruled out.

The issue here is that the municipality cannot make unrestricted decisions as to the use of its roof space for new PV. Rather, national competition law stipulates that any such arrangements must emerge out of formal tendering processes, which all companies are free to participate in. Indeed, one of the new Barcelona en Comú administration's most high-profile confrontations with private capital emerged around the question of tendering within the energy sector. With the contract for supplying energy to the municipality up for renewal in early 2017 and Barcelona Energia not yet operational, the municipality attempted to introduce conditions within the tendering process that would disadvantage candidates with a poor track record on addressing energy poverty, with the aim of favouring cooperative ventures such as Som Energia over large corporations. In response, multinational energy firms Endesa and Gas Natural Fenosa challenged the tendering process in the Spanish Supreme Court, which ruled against the municipality and their attempt to shape the tender. This process has left Lluís pessimistic as to whether the tender for roof space could be shaped

in similar ways. “I can put some in the, in the bidding documents, put some restrictions, but it’s very, very difficult,” he told me. The subsequent problem, in Lluís’s words, is that “these cooperatives... it’s very difficult for them to compete with these [larger] companies.”

Here, again, we see possibilities for democratising municipal supply inhibited by national competition legislation. Yet the newfound openness to the corporations Barcelona Energia initially set out to challenge does not seem to be a result of these nationally set tendering restrictions alone. Rather, Lluís also made the case to me as to why these corporations may be necessary allies:

This [the tendering process] is a bad point, no, because I have a massive battle with Endesa, for example, for the fuel poverty... but, on the other hand, if I want to increase quickly the amount of solar panels in the city, it’s a way to do that, because with these small cooperative it’s been very, very difficult... These kind of cooperatives, they are good... everything is fine with them, but they are very, very small... they have a size, so we have to help them to grow, but we cannot put all the focus on them... it’s very slow if we want to do this with them. So we’ll keep doing with them, but if we want to run to make this jump, we have to think bigger...

While Lluís recognises the compromises of working with the multinational corporations Barcelona Energia set out to oppose, his desire to increase the speed and scale of the city’s energy transition results in an openness towards the public-private partnerships that, in our first interview, he had denounced as having no place within the initiative. Just as was the case with GLA officials, then, Lluís’s logic seems to betray a post-political temporality according to which the urgency of climate transition justifies consensual partnerships between state and capital (Swyngedouw 2010). Again, then, we see spatially extended processes articulate alongside and through the subjectivities and agency of state officials. For should Lluís have felt strongly opposed to the possibility of multinational corporations tendering, perhaps his endeavours to contest this through attempting to introduce certain criteria or restrictions within the tendering process might have been more determined.

5.5 Implications for theory and praxis

Thus far, I have argued that municipal energy schemes in London and Barcelona have been constituted through the dialectical relation of prosaic practices enacted inside and outside of the artificially imagined boundaries of "the state", and contested processes stretching across space and time. In particular, I have paid attention to the process of market liberalisation, which, in the preceding section, I argued connects municipal energy struggles in both cities and, more specifically, serves to restrict their ambition in multiple ways. With this established, I want to suggest that a number of important insights can be drawn out that shed fresh light on some of the broader questions animating my thesis.

State theory

Firstly, the concrete experiences described bring to life and enrich the theoretical abstractions around the state discussed in Chapter 2. From the importance of methodological decisions within an external consultant's report for the decision to white label in London, through to interpersonal conflict between politicians and civil servants within the municipality in Barcelona, we grasp the centrality of prosaic practices in the production of state effects. This, in turn, illuminates the scope for contingency and agency within state effects – an insight that is rendered particularly clear through the ways in which differing levels of political ambition and variegated ideological perspectives on the part of state officials and politicians have played important roles in rendering Barcelona Energia as a seemingly more meaningful and progressive initiative than Energy for Londoners.

Yet, still, we have seen that the prosaic practices and everyday agency operative within the production of state effects do not take place in a vacuum but, rather, are shaped by sets of relations stretching beyond the immediate. Thus, in this regard, we saw how the perspectives and practices of civil servants in both municipalities very clearly emerged out of a set of "common sense" categories and concepts specific to neoliberal capitalism. Further, we have seen that spatially and temporally stretched relations are operative in the production of state effects in numerous other ways, which I conceptualised in this instance with

particular reference to the process of market liberalisation. My argument has been that market liberalisation, articulating alongside and through everyday practices and agency and in relation to other contested processes such as local electoral politics and regional and national policy formation, has significantly shaped the particular forms that municipal energy initiatives have taken in both cities. In this sense, it becomes clear that state effects emerge out of the dialectical interplay of a range of relations at a range of scales. But the dialectic at play here is decidedly open, allowing room for contingency and indeterminacy, with the processes in question co-evolving with and through the messiness of practices that are directed yet never determined.

Municipalism

The open dialectical theorisation of the state that emerges enables us to return to some of the empirical and strategic questions animating the thesis with fresh eyes. In particular, we can pick up again the question of democratising or commoning the state discussed in previous chapters – a question that, as I have explained, is integral to the municipalist project with regards to energy and beyond. What has become clear is that while contestation and struggle waged around or within the institutions traditionally cast as the municipal or local state can shift state effects, state effects are simultaneously the outcome of processes extending way beyond the scale of the municipality. These processes, moreover, often prove frustrating for attempts to craft more democratic forms of local statecraft. Accordingly, the kinds of thoroughgoing transformation of the local state imagined by the likes of Switched On London and Barcelona en Comú cannot be achieved through struggles waged around municipal institutions alone. To think otherwise would be to fetishise the local state, failing to recognise its emergence as one particular moment within a set of socio-ecological processes.

In making this theoretical observation, I do not intend to accuse Switched On London or Barcelona en Comú of this kind of fetishising thinking. For both initiatives very clearly recognise the importance of multi-scalar relations in their respective struggles. As described in the previous chapter, Switched On London's founding intention was to intervene in national scale politics through influencing

the development of the Corbyn project. Barcelona en Comú, meanwhile, are attempting to build national and international networks of "fearless cities", constituted by municipalist projects across the world, which they hope could fight together to remake multi-scalar processes (see: Barcelona en Comú 2019). My intention is not to engage in speculation as to whether these multi-scalar strategies will succeed. But it does seem important to stress that, on the basis of the material discussed in this chapter, the fortunes of the municipalist project will largely hinge upon this scalar question.

Thus, if the previous chapter established that the spatiotemporal dynamics of climate change are helping to position municipal energy initiatives as mediators of the broader municipalist project, this chapter's discussion of the ways in which municipal energy has translated in practice illuminates a tension at the heart of municipalism – a tension that must be considered in explicitly spatial terms.

Utopian demands

What, then, for the specific question of the potential of municipal energy in excavating a radical politics of energy transition? In the previous chapter, I argued that both Switched On London and Barcelona Energia could be considered through Kathi Weeks's (2011) lens of the utopian demand. Both initiatives, I suggested, instantiate similar relations between both the abstract and the concrete and the present and the future, using a proposal for concrete reform in the present conjuncture in order to advance struggles for the future enactment of more abstract and utopian visions of radical democracy. If this, then, is where the radical potential of these municipal energy initiatives arises, the question for this chapter is whether or not this radical potential is realised.

Weeks (2011), recall, argues that utopian demands should do both epistemological and ontological work: informing new critiques of dominant relations and building hope for alternatives on the one hand, and opening new terrains of struggle on the other. While those within Switched On London and Barcelona en Comú have thus far failed to translate their radical democratic imaginaries into practice, the process of making and pursuing claims towards

opening up state institutions to democratic citizen and worker control and management is, to some extent, able to fulfil these epistemological and ontological goals, irrespective of policy implementation. Switched On London activist Emma reflected to me:

I think it would be easy to say we haven't been successful at all, but I don't think that's true. I feel like the idea itself and the way in which we framed it as being about democracy and being about control... I think it has had an impact on the discourse actually... I think it's just pulling all these ideas together, and having that popular currency that just is disruptive, to the discourse.

The claim that Switched On London's articulation of a vision of radical democratic control over energy is "disruptive to the discourse" is suggestive of the epistemological dimensions of Weeks's conceptualisation of the utopian demand. By simply naming a trajectory beyond the binary divide between privatisation and top-down state control, and spelling out how this trajectory could work in practice around the concrete specificities of energy supply, Switched On London and Barcelona en Comú raise searching questions that penetrate the constraints of existing common sense categories and concepts, expanding the political imagination in the process. Even if these initiatives ultimately fail, in the short-term, to bring about the transformation of the local state they imagine, they will have succeeded in publicly questioning the functioning and purpose of the local state.

In doing this, some of the ontological work described by Weeks is advanced as well. Switched On London have used their demand to forge conversations and alliances between individuals and groups that rarely find common ground, for instance hosting events that brought together residents' associations with trade unionists and environmental campaigners. While the relationships formed were perhaps not as deep as the group might have wished (see Chapter 6), new possibilities for solidarity and struggle were opened here. In Barcelona, meanwhile, Barcelona en Comú's failure to thus far implement its democratic aspirations have brought forth new terrains of struggle between activists and state officials: XSE are now publicly advocating for these aspirations

to be realised, and meeting with officials in an attempt to influence their decision-making on this going forward.

Additionally, just as the Berliner Energietisch campaign helped inspire the establishment of Switched On London, the establishment of Switched On London has gone on to open up struggles elsewhere, with the creation of the Energy Democracy Greater Manchester campaign described at the beginning of this chapter. Likewise, a number of Spanish municipalities are now considering following the example of Barcelona Energia in exploring possibilities for municipal supply.

Reifying liberalisation

My contention, therefore, is that these municipal energy initiatives have gone some way towards realising their radical potential as the kinds of utopian demands theorised by Weeks (2011). However, there is simultaneously an important sense in which they fall short in this regard. This is that these endeavours to create new municipal supply companies risk reifying the process of market liberalisation. As I have explained, EU liberalisation directives prevent the wholesale "re-municipalisation" of energy supply, with the only course of action available to municipalities interested in municipal supply being the creation of a new supplier to compete in the market against existing supply firms. Thus, the liberalised market in energy supply is maintained.

Yet, for all of the reasons described above, the liberalised market in energy supply should be opposed as an integral obstacle to the democratisation of the energy sector. Prior to liberalisation, energy "suppliers" did not exist in the way they do now, that is as companies formally separated from the material infrastructure of the energy system. Rather, people bought energy from regional public monopoly enterprises, which were also responsible for managing electricity and gas distribution networks. As noted above, the unbundling of generation, distribution and supply and the creation of competitive markets in the former and the latter, were part of the neoliberal project that sought to resolve a sustained crisis of capital accumulation and, in the process, has sought to fashion and discipline forms of consumer-citizenship (Luke 1995; Agrawal

2005). If, as described in Chapter 2, Matt Huber (2013) helps us understand how the materialities of oil have shaped the market subjects of post-Fordist capitalism, we must simultaneously reflect upon the ways in which a competitive market in energy supply – and the discourse of consumer choice that accompanies this, according to which the answer to complex injustices such as energy poverty and climate change is more intelligent or ethical consumer decisions – serves to reproduce the "hostile privatism" that has come to characterise neoliberal regimes of social reproduction.

Indeed, in my interviews with representatives of energy firms from within the private sector, the emergence of new municipal suppliers did not seem to be considered as a threat to profitability. Consider this extract from my interview with a representative of Gas Natural Fenosa:

Q: Barcelona Energia... What do you think about that? Does that change anything for Gas Natural?

A: No, I don't think so. It's a very small market share.

Similarly, a representative of Endesa I met with commented:

So, supply, okay, so there will be one more competitor, so the Ayuntamiento [city council] creates a supplier, well hey, it's one more, and it's a free market so it's accepted right? It's the same rules for all, and they are welcome there.

These comments give us further cause to question the extent to which municipal supply initiatives challenge incumbent power relations within the sector.

In sum, the existence of a competitive market in energy supply operating apart from the material infrastructures of the energy system serves no need other than, in the first instance, the creation of new markets and, henceforth, opportunities for accumulation. A utopian demand pertaining to energy supply, then, to stand a chance of opening up possibilities for anti/and-or/post-capitalist energy transitions, should bring forth new critiques of the liberalised supply market itself. To my mind, this means nothing short of the demand to abolish the supply market and the unbundling of the sector, rather than the demand to add a new municipal supplier to a parasitic competitive market that is left unquestioned.

In arriving at this conclusion, I seem to end up in the thorny position of a scholar-activist researcher who finds myself critical of the activist initiatives I intended to participate in and support. Several things must be said at this point. Firstly, as outlined above, my take is not wholly critical but, rather, attempts to give a nuanced account of the extent to which the municipal energy initiatives in question may or may not live up to their "utopian" potentials. Second, as outlined in Chapter 3, there is very limited utility in a scholar-activist praxis that refuses to engage in honest critical reflection around the initiatives they engage with. Third, my variegated relationships to the different initiatives involved are important here. In Barcelona, owing to my scholar-activist approach, my primary loyalties are to the independent activist initiatives engaging with Barcelona Energia in contestatory ways, rather than the politicians, advisors and officials developing the scheme.²⁴ In London, meanwhile, my embedding within the campaign has seen me develop strong strategic opinions about its progression, just as is true for all members of the group.

This connects to the fourth and final point, which is that my conclusions around the need to abolish the liberalised supply market is a product of political discussions with activists in both cities. I have already described how, in Barcelona, XSE's principal concern is for the re-municipalisation of electricity distribution. While many within the network welcome the municipality's decision to establish Barcelona Energia, their focus is on re-municipalising distribution, in large part because many within the network see the establishment of a new supplier as too limited a challenge to dominant relations within the sector.

In London, all within Switched On London, myself included, initially felt convinced by the importance of establishing a new democratic supplier, as was described in depth in Chapter 4. But matters now seem more ambiguous. I raised the question of whether our demand falls short on account of its failure to

²⁴ I acknowledge that many Barcelona en Comú politicians and advisors were until very recently social movement participants and, indeed, I am arguing that attempts to draw a line between state institutions and society are premised upon a myth. Yet, still, my political commitments and responsibilities lie primarily with the activists contesting Barcelona Energia. This is because, for the reasons outlined in the chapter, the development of this initiative has proved frustrating in some regards, and my belief is that it is through contestatory activist engagements with the initiative that it could be pushed in more hopeful and radical directions.

challenge the existence of a competitive market within energy supply in several of my interviews with Switched On London activists. Archie recognised the pertinence of this critique, yet maintained that establishing a new municipal supplier in London retains potential as a means towards transforming the energy system, and that refraining from demanding an end to a competitive market does not undermine the benefits of adding a new municipal player:

Do I think that energy is a natural monopoly, that you should just get rid of all private actors? Probably. I haven't really thought about it but I don't think that just because you're not saying, "Let's wipe out the energy market," doesn't mean that there isn't benefit in increasing state-level control of these things... It seems a bit like one of those arguments which is letting the best be the enemy of the good... Do I think that creating an actually existing, municipally owned, democratically run, renewable energy, big spending state player in the energy market could be a crucial step in fundamentally transforming and democratising the way the energy system is run? Yes.

Emma took a similar position, acknowledging the importance of the critique yet arguing that the existence of a new energy supplier under participatory democratic control would facilitate an important shift in society-energy relations:

So I guess, in a way, I accept that certain set of criticisms, particularly some current energy companies that exist, public energy companies at the moment. But for me the part that challenges it is the, is the democracy part... For me, that does open up a space where there's an energy – let's not call it an energy company, an energy provider – that people in some sense also control, people in some sense have the ability to influence and shape, and through that in small ways they start to think differently about their relationship to energy.

Mika, however, adopted a less sympathetic perspective when reflecting back upon Switched On London's demand:

I mean, supply is basically a like, paper, no infrastructure, role. I guess a paper relationship. And that in itself is a limitation. How much are we actually shifting anything?... The whole function of the supplier is a weird one in the first place, why it exists. I think it exists partly because of privatisation, they were just like: 'here, let's create this, a market...' There was supposedly a choice for the consumer. 'Cause you couldn't have a choice in generation. And if we think that the market is shit and doesn't work, I guess the questions is how much to focus on getting a better market, are we trying to make that market work?... Um, so I guess that's partly... are we changing the system? Partly, there's no infrastructure involved, so you can set up a supply company that runs that paper relationship. But are we adding someone else to the market but not shifting the system?

Switched On London, like most other campaign groups, activist initiatives and movements, brings together diverging perspectives. It is not possible for me to simply elevate a singular “group perspective” on the question under consideration. I wish, then, to speak frankly about my own personal take, which emerges out of my own praxis within the group. As I outlined above, I agree with Archie and Emma that the demand for a democratic municipal supply company retains clear political utility. For me, this is by virtue of the new avenues of critique and struggle prised open with regards to the transformation of “the state”. What I am less sure about – and where I am inclined to agree with Mika – is the potential of this demand to fundamentally change the energy system. For the discussion of this chapter, to me, indicates that the entanglement of municipal energy schemes within processes of market liberalisation greatly restricts their potential to deliver the democratisation of the sector and, therefore, that the benefits alluded to by Archie and Emma are less compelling than Switched On London initially hoped. Challenging market liberalisation, then, becomes essential. What is called for, I believe, is a set of demands that portend an energy system without a set of competing “suppliers” who take no role within the material infrastructure required to produce and distribute energy; an energy system where this infrastructure is owned and managed in accordance with the radical democratic impetus that Switched On London and Barcelona en Comú initially advanced.

Given the ongoing negotiations around Brexit, demands that explicitly challenge liberalisation are potentially more winnable in the UK context than in Spain, as the possibility for the UK's departure from EU liberalisation directives remains open (although, clearly, the outcome of any potential Brexit negotiation and their implications for the energy sector cannot be predicted at this point). For countries like Spain, who remain tied to these directives, prospects for undoing this key tenet of liberalisation would be contingent upon struggles beyond the municipal or national level, requiring shifting relations within the European Union itself.

Note that in making this argument, my aim is not to inscribe a distinction between creating new energy supply companies as somehow “reformist” and

abolishing a competitive market in energy supply as somehow “revolutionary”. I see little use for such binaries (see: Luxemburg 1986). My hope is that the open dialectics of the state developed here helps transcend this dichotomising thinking, which is often premised upon an understanding of revolution as about the seizure of state power – an objective that proves untenable when we acknowledge that the state is not a thing of itself to be seized by one class or the other (Jessop 1982; Abrams 1988; Holloway 2002). Indeed, the concept of the utopian demand that I am working with is, to my mind, one useful way to avoid the constraints of the crude “reform versus revolution” dichotomy, the idea being to demand concrete reforms that advance revolutionary transformation. My argument here is that both the creation of new energy supply companies and the abolition of a competitive supply market hold potential as utopian demands, but that the utopian potential of the former with specific regards to change within the energy sector is limited.

Post-politics

Finally, in the previous chapter, I argued that the early development of agendas for democratic municipal energy in London and Barcelona offered hope for a radical politics of energy transition, in turn presenting grounds to rethink some of the key claims within the post-politics literature. Given that the discussion within this chapter has, to an extent, offered a less optimistic take on municipal energy, what are the implications for debates around post-politics?

It might be tempting, on initial reflection, to re-assert the post-politics thesis. For what seems to have happened is that attempts to develop a radical politics of energy transition have, through their encounters with the institutions of what Rancière (1999; 2001) would term the police order, ended up reifying the process of market liberalisation so fundamental to neoliberal energy reforms. Thus, it would be easy to read this chapter as evidencing the hypothesis that responses to climate change fail to disrupt the neoliberal consensus, and/or the hypothesis that this consensus will not be challenged through forms of political contestation oriented around the levelling of demands on the state (Swyngedouw and Wilson 2014; Dikeç and Swyngedouw 2017).

However, this reading of events in London and Barcelona would fail to account for the subtleties and nuances of the understanding I have sought to develop in this chapter. Whereas the polemical accounts offered by many of the key interlocutors within the post-politics literature dismiss engagements with state institutions as futile, the open dialectical approach I have articulated renders the production of state effects as contingent upon the outcome of processes produced through contested everyday practices and, hence, as an important terrain of struggle. Moreover, I have argued that despite their failure to challenge market liberalisation, municipal energy initiatives in London and Barcelona have thus far been, at least to some degree, effective in opening up new lines of critique and struggle around the fetishised state form. As such, it would be wrong to strip these schemes of any emancipatory value.

If anything, the discussion of the previous two chapters has highlighted a sense of open ambiguity with regards to the politics of municipal energy. I have sought to show that just as municipal energy schemes should not be venerated as holding revolutionary promise in any straightforward way, neither should they be dismissed as hopelessly "reformist", ineffective or indeed post-political. As further alluded to above, I see little explanatory or strategic value in a theoretical perspective premised upon dualistic distinctions between the political and the post-political, the reformist and the revolutionary, or institutional and non-institutional politics. The concrete specificities and messy contradictions of the municipal energy struggles discussed cannot be understood through these binaries.

5.6 Conclusion

This chapter began with the moment at which the ambiguity I felt around the politics of municipal energy supply initiatives first became clear to me. When Julian Packer announced the decision to drop plans for a Manchester municipal energy supply company on account of the market risks involved, I was unable to summon the arguments required to defend the demand I had spent the previous year campaigning on. The discussion within the chapter, I hope, helps make sense of my experience in Manchester. For one thing, I have suggested that

Packer's arguments around market risk were not entirely without substance (although Manchester's new mayor Andy Burnham, elected in May 2017, has since put the idea of a new municipal supplier back on the GMCA's agenda). But, more importantly, I have argued that municipal energy supply schemes do little to challenge the corrosive market processes and logics that have come to dominate within the energy systems of the UK and Spain, and which I have suggested are constraining the progressive potential of municipal energy initiatives themselves. To borrow the words of Mika, "adding someone else to the market" does not equate to "shifting the system". Thinking back to my debate with Julian Packer, I realise that, just one year after the campaign's launch, this doubt had already begun to surface for me and others within Switched On London.

That said, my argument is not that municipal energy supply initiatives are therefore futile. Rather, my suggestion has been that Switched On London and Barcelona Energia have helped transcend narrow public/private binaries, have expanded the political imagination as to what the form and function of the local state might look like, and have opened up new terrains of struggle for winning further changes in London, Barcelona and elsewhere. In sum, these schemes retain some radical potential owing to the possibilities they open for imagining and crafting new forms of democratic statecraft, yet fall short in their promise of portending transformative change within the energy sector.

If municipal energy, then, is to some extent frustrating as an avenue towards the radical politics of energy transition pursued within the thesis, might further hope be found elsewhere? This is the question taken up by the next chapter.

6. Beyond Municipal Energy

Towards an Everyday Energy Politics

6.1 Introduction

On a brilliant Barcelona morning in early April 2017, I joined a crowd of 100 or so activists from *la Alianza Contra la Pobreza Energética* (APE) in strolling through the open doors of energy firm Endesa's customer service office on *Gran Vía*, a busy main road close to the famous *Plaza de Cataluña*.²⁵

I remember, upon arrival in the clinical corporate space, grey-haired men laughing as they started to race on speeding office chairs. Loud whistles beginning to blow. Jackets and sweaters swiftly removed to reveal a sea of red T-shirts, each displaying the slogan: “*Ni set, ni fred ni foscor!*” (no thirst, no cold, no darkness!) Younger people huddling round smart-phones. Others bringing out books and magazines; the woman next to me starting a crossword puzzle. And then, soon, jubilant chants of “*Sí Se Puede!*” (Yes we can!) as together we moved deeper into the office. “*Tenemos derechos: agua, luz y gas!*” (We have rights: water, light and gas!) was the next chant as music erupted from a portable sound system and we danced and sang. Out of nowhere piles of Endesa bills appeared and we ripped them up with glee, throwing the shreds into the air. Office tables became kitchen surfaces as enormous bags of bread, cured meats, cheese, tomatoes and fizzy drinks arrived for lunch. As banners were hung to the shop front, car after car passed by, beeping their horns in support.

Meanwhile, back inside the office, around twenty *afectadas*²⁶ living in illegally occupied homes repurposed a small booth to begin filling in the documentation required to make an application for regularised electricity connections. This was the third time that Endesa offices had been occupied by

²⁵ This chapter develops an argument I first made in a paper for *IJURR* (Angel 2019).

²⁶ As noted by Gonick (2016a) there is no direct translation of *afectada* to English. This is the term that movements across Spain used to refer to those directly affected by the financial crisis and a term that people readily self-identify as (in contrast to notions of poverty, which people tend to avoid identifying with). I use the feminine term *afectada* as opposed to the masculine *afectado*, to follow APE in acknowledging that women tend to be principal protagonists of their struggle.

APE in pursuit of electricity access for illegal occupiers – a demand that thus far Endesa have refused to meet. While Endesa initially turned down any dialogue, after an exhausting 28-hour overnight protest, management eventually relented and agreed to a meeting the following day. Addressing the APE assembly that evening, group spokesperson Maria reflected: "Getting Endesa round the table with us to talk about connections for occupied homes is something we never thought could happen. It is a real step forward, but a long fight ahead." The woman I sat next to agreed: "A little victory is a big victory. All victories are very important."

My experience in the occupation turned out to be a fitting introduction to the form of praxis enacted by APE, which, having been left unexplored in the thesis until now, takes centre-stage in this penultimate chapter. As initially explained in Chapter 1, APE are an urban social movement founded in Barcelona in 2014, which has since spread to a number of towns and cities across Catalonia. Through a model of collectivised support and direct action initially developed by anti-eviction movement *la PAH* – a movement that APE emerged out of and collaborate closely with – APE defend "the right to energy" through contesting energy poverty and infrastructural disconnections, as part of the broader pursuit of the right to a dignified life.

As set out in Chapter 1, the core question this thesis seeks to answer is that of how we might conceptualise and enact energy democracy. Thus far, the thesis has interrogated one means of doing so, centred around reconfiguring the institutions of energy governance via municipal energy initiatives. Yet, as I suggested in the conclusion to Chapter 5, we are left with the question of whether there might be other ways of thinking and doing energy democracy. In Chapter 2, I introduced an alternative approach in this regard, characterised as the expansion of energy agency, departing from Rancière's approach to democracy. To recap, democracy, for Rancière (2009) is a conflict-ridden set of practices that render issues, spaces and relationships preserved as "private" – and, hence, to be presided over by a minority of rulers, representatives or experts – as "public" matters that all in society have a recognised stake in. Thus, in this chapter, I argue that APE explode the policing of "energy" as a fetishised sphere of expert

technocratic concern, supporting those typically left unheard and unseen within energy debates to claim agency. This form of energy democracy, I suggest, is built upon the foundations of what I term, inspired by Loftus (2012) an “everyday energy politics” and, in particular, a translation of “energy” as social reproduction. In making this argument, I address my third and fourth Research Questions, discussing the rationale underpinning endeavours to expand energy agency across both cities, and reflecting upon the potential of these endeavours to build energy democracy.

While it is APE's praxis that underpins this core argument, the chapter does not depart from my ethnographic engagements with APE alone. Rather, I seek to put my experiences with APE into conversation with those within Switched On London. The chapter begins with some reflections on the London campaign. Specifically, I highlight the frustrations felt by Switched On London activists as to the campaign's over-emphasis on engagement with bureaucratic state processes. Part of the frustration here, I suggest, is the failure to disrupt dominant ideas as to the types of voices and forms of knowledge that are recognised as legitimate within debates and decision-making around the energy system. A brief flash of this disruption, I suggest, was glimpsed through Switched On London's engagements with south London council estate residents' struggles to define the mechanisms through which their homes are heated. Yet this was all too fleeting, and left open the question of how this more disruptive work could be productively maintained.

The remainder of the chapter takes up this question, by moving to the Catalan context. Here, the precise ways in which APE enact an everyday energy politics are developed. APE, I argue, reframe questions of energy as questions of how we reproduce life with dignity. And through the new reproductive relationships formed within the community that constitutes APE, new unruly subjectivities are forged, with those previously excluded from energy debates gaining the confidence and collective support necessary to claim agency.

Thus, whereas the previous two chapters have discussed the experiences of London and Barcelona together, this chapter departs from this narrative strategy, instead beginning in the former city and ending in the latter. This is because my

intention, in this chapter, is more to consider these struggles in counterpoint. Whereas, through my encounters with Switched On London and Barcelona Energia, I was struck by the similar logics, hopes and frustrations that these schemes betray, the dominant feeling I had through my engagements with APE was that this was an initiative with a quite different approach; an approach that offers interesting answers to many of the questions raised within the London context.

6.2 Restricting energy agency in London

The first step in my argument will be to show how, drawing on experiences in London, energy is in some important respects treated as what Rancière terms a “private” matter, around which many people's agency is refused. I begin by reflecting upon the ways in which the Switched On London campaign worked alongside struggles around urban regeneration on the south London housing estates of Myatts Field North and Myatts Field South.

"We can't really comment"

In south London, 2012, Lambeth Council signed a 25-year private finance initiative (PFI) contract with Regenter – a consortium bringing together the John Laing Group infrastructure fund and regeneration consultant Pinnacle – to oversee the £150 million redevelopment of a 1970s council housing estate called Myatts Field North. With the estate in a state of disrepair following decades of under-investment, its residents voted in favour of the regeneration in 2005. Yet what was not featured in this vote, and was not disclosed to residents for years afterwards, was that the regeneration was to include the building of a new gas-fired combined-heat-and-power (CHP) plant. This would see all households' individual boilers removed and replaced by connections to a new district heating system, operated by German utility firm E.ON. This district heating system – which sees all houses on the estate connected to the one shared CHP plant through a series of pipes, through which hot water flows – has become a key terrain of contestation for the struggles around the regeneration that have since ensued. Those living on the estate find themselves locked into 40 year contracts

with E.ON for a heating service that has so far proved highly problematic, including regular outages, unreliable repairs, extremely high and often inaccurate bills, poor customer service and clear failures of transparency and accountability (Hodkinson and London 2017).

While residents on the Myatts Field North estate are fighting in opposition to the new E.ON-operated district heating system, on the adjacent Myatts Field South estate, residents are struggling to keep an old district heating system that this estate has relied upon since the '70s. This follows Lambeth Council's decision to replace the system with new private household boilers despite initial promises for a £4.5 million refurbishment of the district heating scheme as part of the Myatts Field North PFI deal – a decision that residents fear will drastically increase heating bills, given that households that have transferred to private boilers have reported costs tripling. Amidst petitions and protests, many households on the Myatts Field South estate have refused to let engineers enter their homes to install new boilers, with the council eventually obtaining injunctions to gain access in 2015 (Evening Standard 2015).

Switched On London have attempted to build relationships and organise collaboratively with residents on the Myatts Field estates, to varying degrees of success. A pivotal moment in this regard was a public meeting with GLA officials held in the newly built community centre on the Myatts Field North estate on 22nd October 2016, co-organised by Switched On London and the Myatts Field North Residents' Association and PFI Monitoring Board. The idea here was to provide an opportunity for those involved in an array of London energy initiatives and struggles – from community energy practitioners to councillors, as well as Switched On London and Myatts Field residents – to put their questions and thoughts to GLA energy decision-makers.

On the one hand, this presented those living on Myatts Field with their first opportunity to raise their grievances with the GLA:

You talk about transparency. Myatts Field South was given £4.5 million to rebuild the communal system on the estate... Now to date, no one can say where is that money. With this "transparency" we'd like you to investigate what was

done with that money that was supposed to build our communal heating system.
(Myatts Field South resident)

I have arthritis and cold can make me very, very vulnerable.... Why am I paying three or four times what I used to pay for a system that doesn't benefit me at all? What I'm hearing is it's much too complex to sort out under the status quo, it will take years and years and maybe eventually when my grandchildren are born it could happen... I'm not satisfied that I've heard anything so far today that suggests this will be addressed as an urgency. I'm hearing that things could happen, probably, piecemeal, over the long term. And I'm not happy with that to be honest. (Myatts Field North resident)

Yet given the disparate make-up of the assembled meeting participants, these fiery moments of confrontation around everyday struggles on the Myatts Field estates co-existed with highly technical questions from renewable energy practitioners around policy frameworks for smart energy, battery storage and solar PV.

The response from the GLA officials was telling. While significant time and enthusiasm on their part was devoted to discussion of the policy-based questions raised politely by professional energy "experts", the GLA's Assistant Director for Environment Patrick Feehily had only this to say in response to angry Myatts Fields residents:

This is going to sound like a bit of a cop-out but we don't actually fund decentralised energy schemes in London, we help local authorities primarily come up with plans. We weren't involved in the specifics on Myatts Field so we can't really comment.

Feehily's "cop-out" was perhaps not surprising. The attempt to displace responsibility and, hence, to avoid the need to answer awkward questions is a standard technique deployed by government officials and representatives in attempts to keep the parameters of debate on more "comfortable" footing. Yet Rancière (2009) helps us to think through this policing of political discourse in more precise terms. What seems to be going on in this instance is that some questions, forms of conduct and people are seen as worthy of a meaningful response and others are not. GLA officials felt obliged to answer the polite

professional voices of those whose part within energy decision-making goes unquestioned – questions that were around a range of issues pertaining to the London decentralised energy schemes that Feehily, in his response to Myatts Field residents, professed not to have an involvement in. Yet the voices of working class council estate residents, speaking frankly to their everyday struggles, were not deemed fully relevant or worthy of proper engagement. Indeed, following the meeting, GLA officials refused the request of Myatts Field residents for a follow-up meeting. This, I suggest, speaks to what Rancière terms a prevailing “partition of the sensible” according to which debates around energy are seen as the preserve of a minority of “experts”, excluding the voices and concerns of most people with regards to the energy system.

Sucked in

That energy is preserved as a “private” issue (Rancière 2009) is further evidenced by additional reflection upon the Switched On London campaign. In particular, activists from within the campaign felt it necessary to present themselves as energy “experts” in order to be heard by the GLA. Following the election of Sadiq Khan as London Mayor, Switched On London prioritised building working relationships with the GLA officials charged with responsibility for delivering Energy for Londoners. Thus ensued a series of closed-door meetings at City Hall, in which Switched On London representatives would meet with officials to discuss the ways in which the municipal energy scheme might take shape. The campaign eventually ended up commissioning an econometrician to conduct a piece of financial modelling on the potential for a municipal energy supply company in London, detailing various financial scenarios including the costs and revenues that the GLA would be liable for and the potential benefits and savings for customers of the company (Platform and Switched On London 2017).

The goal of this advocacy work was to present ourselves as credible to GLA officials and, in turn, to gain influence. Whereas angry residents of the Myatts Field estate were refused dialogue, Switched On London's attempt to present ourselves as expert practitioners prepared to have a “reasonable” discussion was

engaged with. Again, we see that only certain voices are recognised within energy debates.

A recurring thread running through my interviews with Switched On London activists was a feeling of regret at becoming overly "sucked in" to GLA bureaucracy:

The GLA were like, "Come to Papa," and we were like, "OK, we love you guys, thanks so much." ...They see us maybe as a bit of an irritant but we don't have an alternative power base. There's no sense that we can actually do anything to hurt them if they don't do it. You never win anything unless people are frightened of you... I think I would like SOL to disentangle itself from where it is in terms of being so close to the GLA. I don't think it's something we should particularly be doing. (Archie)

In a way I think now, we have kind of got to the stage, I think perhaps the whole group has, where we're a bit, like "woah, we've got too much going into advocacy". So we can try and take a step back from that, and I think it's a flaw, I didn't necessarily feel that immediately. (Emma)

The worry, then, is that the focus on influencing the GLA through lobbying and advocacy work has ultimately proved ineffective. Holloway (2002) argues that initiatives orientating struggle around the state tend to become "sucked in" to the state's way of doing things and, as such, cease to challenge the social relations they intend to oppose. It seems, unfortunately, that Switched On London became "sucked in" in this way. Archie's comments summarise what has now become a consensus within the group, which is that the focus on working inside the GLA diverted energy from the need to build grassroots power. Thus, when the GLA made decisions we disagreed with, we had no organising muscle to contest this.

This, for Archie, was "a problem of success": galvanised by the initial victory of Khan's manifesto pledge, the campaign became complacent in their capacity to keep on shaping Khan's agenda through further advocacy. Linked to this, Emma suggests that the campaign was dragged into the temporal rhythms of the local state:

There was a specific moment with the GLA, and really lobbying is probably the best way to influence that specific moment. And then the moment went on much longer than we thought.

While the campaign's initial decision was to focus on lobbying and advocacy work for the brief time in which the GLA were making their decision on whether to white label or establish a fully licensed company (see Chapter 5), the GLA delayed this decision significantly. But rather than deciding to change tactics, the GLA's timescale shaped Switched On London's orientation.

The event on Myatts Field North described earlier – and the attempt to build relationships with residents on the estate – were perhaps the closest the campaign came towards building a more outward-facing movement-based orientation. In Archie's words:

I think the Myatts Field thing was great. That felt like exactly the right thing we should be doing... It felt like there was energy about it and we brought together a bunch of people who would not otherwise have been brought together... I think events and bringing people together is almost worth it in itself because you don't know what happens after that and you can create possibilities. You don't create those possibilities by writing policy papers.

However, the relationship between Switched On London and Myatts Field residents was not without problems:

I think you're asking people who are really pissed off about a direct thing that's affecting their lives to engage at another level of abstraction. You're like, "Ok, great, let's mobilise that," and they're like, "I don't want to mobilise it I just want fucking hot water." I think that we were quite conscious of accessing that community in a careful way and building relationships through Fuel Poverty Action and stuff. That seemed to function OK. On the other hand there was a whole bunch of people who'd never been there before who just turned up outside, who were like let's get in their community centre and claim to represent their community now. I don't think we did it badly, but of course it's weird. (Archie)

With the Myatts Fields stuff I felt like, you know, they have all this stuff they are campaigning around and really we're so stretched, there's not much we can do to offer them support with like, their campaign priorities. Unless we're beginning

with their campaign priorities, then that's not a meaningful way to campaign with people. It kind of feels like we're using it really, because also our concern at the moment is this target around the public not-for-profit energy company, um, we don't have the capacity and the strategy to make sense to begin with in terms of the fuel poverty groups. That's a different campaign. (Emma)

Here, Archie and Emma speak to a tension between the goals and outlooks of Switched On London and Myatts Field residents. There is a concern that the struggles of the latter were instrumentalised to serve the ends of the former, with Switched On London – a largely white and middle-class group with a background in NGO campaigning and academia – potentially seeking tokenistic claims to grassroots legitimacy through fleeting involvements with the Myatts Field struggle. If this assessment of events is overly harsh, it is certainly true that no deep relationships were forged between the two sets of struggles. Once the event described above was over, Switched On London made little attempt to keep offering support to residents on the estates. As Emma alludes to, this was because maintaining relations with Myatts Field residents was not deemed strategic in pursuit of the particular goals Switched On London set itself with regards to GLA policy.

Here, then, we see a tension between the two forms of energy democracy being distinguished in the thesis. In short, Switched On London prioritised institutional reconfiguration over the expansion of agency within the energy system. What might have happened if an alternative decision had been made? What possibilities might have been opened if the everyday struggles around questions of energy access such as those waged by Myatts Field residents had taken centrality? To answer these questions, the remainder of the chapter turns to the struggles of APE in Catalonia.²⁷

²⁷ The frustrations documented in this section underpinned Switched On London's decision, noted in Chapter 3, Section 3.3, to shift away from the focus on municipal energy to the nascent London Leap initiative. While, as already explained, a discussion of this new project is beyond the scope of the thesis, part of the thinking behind London Leap is a desire to craft a politics more attuned to struggles around everyday life (see: Switched On London 2018).

6.3 Towards an everyday energy politics in Catalonia

Thus far in the chapter, I have drawn on experiences in London to argue that energy is currently a matter of "private" concern, which is to say that agency within energy debates is restricted to a minority of people. Further, I have argued that Switched On London failed to pull energy issues into the public sphere by expanding who has agency within the energy system. The argument I wish to make now is that Catalan activist network APE portend a political praxis with the potential to drag energy into the public sphere, offering hope of energy democracy via the expansion of energy agency. The context of energy poverty and infrastructural disconnections in Catalonia must firstly be considered.

Energy poverty in Catalonia

Crisis and austerity in Spain (see Chapter 1) have played an important role in heightening energy poverty – defined by Bouzarovski (2014, 276) as a “situation in which a household lacks a socially and materially necessitated level of energy services in the home” – with stagnating wages and rising unemployment curtailing many people's ability to afford basic necessities such as energy (Tirado Herrero and Jiménez Meneses 2016). Spanish Household Budget Survey data indicates that in 2012, 17 per cent of both Spanish and Catalan households spent over 10 per cent of their income on domestic energy costs, almost triple the figure in 2007 at both the regional and national level (Tirado Herrero et al. 2014; Tirado Herrero and Jiménez Meneses 2016). And while, in 2008, Spanish electricity prices were roughly equivalent to the EU average, by 2016 pre-tax electricity prices had risen 65 per cent, the steepest increase of all EU member states, resulting in the third-highest tariff-increase of EU members for domestic consumers within this period (Eurostat data cited in Asociación de Ciencias Ambientales 2018). In Barcelona specifically, a recent report commissioned by the city council estimated that in 2016, around 170,000 people "were unable to maintain their homes at an adequate temperature during the winter months or were late with the payment of bills including electricity, gas or running water" (Tirado Herrero 2018, 5).

How, then, is “energy poverty” embodied and lived in Barcelona and the surrounding region of Catalonia? How do the textures of this form of precarity relate to others? What kind of politics might emerge within these inadequately heated and cooled households? To begin to answer these questions, I want to introduce Esther, a single mother from El Vendrell, a touristy town in the province of Tarragona (south-west down the coast from Barcelona).

Esther described herself to me as “bolshie for as long as I can remember, in every way.” Unable to pay the rent, Esther was forced to leave her home in April 2012. Since then, she has navigated a difficult path between periods of street homelessness, short-term stays and, from 2013 onwards, illegally occupied housing (see Chapter 4, Section 4.4). For those like Esther living in occupied homes, access to utilities is a complex struggle, with utility firms reluctant to reconnect without a legal housing contract. For Esther, upon moving in, the most pressing issue she faced was water access. At first, she would take water from a nearby public fountain. But the fountain soon broke, and the city council refused to fix it. Esther was forced to walk 700m down a steep hill and back again to take water from another fountain, but this became impossible due to the severe back pain she developed. And when she found a nearer fountain the council found out and shut off access. While previously determined not to, in her own terminology, “steal” water, Esther was left with no choice but to accept the decision of a new housemate to illegally connect the house to the water network. But the water company soon found out and cut off access.

Meanwhile, with firms refusing to connect occupied homes to the electricity network, Esther and other illegal occupiers’ only option is illegal reconnection, referred to as the practice of *pinchar* (to illegally connect), *estar pinchado* (to be illegally connected), or *luz/agua/gas pinchazo* (illegally connected light/water/gas). Esther had maintained a pinchazo electricity connection without problems between 2013 and summer-2016, when a technician from her electricity supplier Endesa arrived to disconnect the household. Shocked and afraid, Esther managed to persuade the technician to secretly reconnect her. But since then, she has had a series of similar visits. In many instances, workers have again empathised, temporarily disconnecting the

house, documenting the cut-off with a photo sent to management and then re-establishing the supply on the sly. Other times, Esther has been left in the dark, forced to pay various "colourful" and "unscrupulous" (in her words) characters, or else call upon the amateur electrical know-how of friends, to re-establish her pinchazo connection.

Hope, in Esther's case, was found through APE, recommended to her by a friend of a friend. APE's *#AguaParaEsther* (Water for Esther) campaign called upon the city council of El Vendrell, who had a majority 51 per cent stake in Esther's water supplier Aigües de Tomovi, to establish a legal water connection. Esther and other protesters camped for three months – from September to November 2015 – outside the council offices before the council finally relented, making Esther the first person in Spain to receive a legal water connection within an occupied household and setting a precedent for many other cases to follow suit. Unfortunately, there has been less progress on the question of electricity: energy firms still refuse to connect occupiers, leaving thousands without lighting and, where electricity is relied on for this, cooking facilities. Here, the denial of agency within the energy sector that I have discussed in the chapter thus far with reference to Ranci re (2009) is taken to its logical extreme. The question is not only who is afforded voice within energy debates but, further, who is materially included within the infrastructure networks of the energy system itself. Accordingly, we see the relationship between energy infrastructures and people privatised to the extent that those living in illegally occupied homes – even those willing to pay for energy as per the norms of capitalist energy-society relations – are not counted as deserving of inclusion within this relationship, which of course has become so integral to inclusion within the modern capitalist city (Graham and Marvin 2001).

The goal of regularised electricity access for occupiers reliant upon pinchazo connections was APE's primary campaigning focus in the three months I spent in Barcelona in April-June 2017. While a recent report commissioned for Barcelona city council suggests that pinchazo connections are a relatively fringe practice (Tirado Herrero 2018), Esther's situation is similar to many of the *afectadas* I met within APE. Those who seek support through APE tend to be

enduring the most severe forms of energy poverty and, thus, pinchazo connections become an important last resort. For the protagonists of this practice, the result is a form of urban life evocative of the provisional and improvised survival strategies described by Simone (2004a, 2009) with reference to the urban poor in Jakarta and Johannesburg (see Chapter 2, Section 2.11). Indeed, Gonick (2016a), addressing the ways in which la PAH have helped make squatting a mainstream practice in Madrid, draws connections between the irregularity and improvisation of illegal housing occupation in the Spanish capital and the forms of urban agency described by Simone and others with reference to various different southern cities. The cases of Esther and the afectadas of APE illustrate that these links can be made beyond the specific question of housing. From illegal utilities connections through to Esther's backbreaking trek to the water fountain and the widespread reliance on candle-light (the cause of a number of tragic house-fire fatalities in recent years (BBC News 2016c)), the precarious forms of "makeshift urbanism" (Vasudevan 2015) that we tend to think of as specific to the "southern" experience are constitutive of daily life within Catalonia – and increasingly so in the midst of financial crisis and austerity.

The point is not that the makeshift urbanism of Catalan cities mirrors in any straightforward way that enacted elsewhere. Rather, following the method of relational comparison discussed in Chapters 2 and 3, embodied practices, situated within distinct historical geographies, constitute and in turn are constituted by processes that – while articulated differently – connect urban life across space (Hart 2017; Loftus 2019). Indeed, for Gonick (2016a), we can identify shared processes of counter-hegemonic urbanism stretching across geographical difference, connecting Madrid and variegated southern urban contexts. Might something be similar be said of pinchazo practices in Catalonia? Silver (2014) suggests that "incremental" extensions to Accra's electricity grid through illegal re-connections may have the potential to prefigure "future possibilities for affordable or even free energy for the poor" (p.801). Are pinchazo practices in the urban peripheries of Catalonia forms of quiet encroachment (Bayat 2000) with the kind of emancipatory implications identified by Silver

(2014)? Might these practices constitute a means of claiming agency within the energy system by those otherwise excluded, henceforth bringing energy into the public sphere (Rancière 2009)?

Certainly, in the first APE *asesoramiento* (collective advice session) I attended – the point at which I began to realise the extent to which *pinchazos* were widespread – my instinctive reaction was to celebrate this along such lines. Yet after the meeting, APE activist Mònica explained:

We [APE] don't advise or encourage it [*pinchar*], because it's not what we want. People deserve a legal connection, a safe fully functioning secure supply – this is their right. So we choose other means. We don't blame anyone who does it... But we say that people have the right to a legal secure service.

For APE, *pinchar* is recognised as a necessary step taken by those with no other option, yet as a wholly inadequate resolution. The more I discussed the realities of *pinchazo* connections with people relying on them, the more this inadequacy became plain. In Esther's words:

My fight for the meter isn't so much to do with whether or not I can pay, it's about the peace of mind that comes with knowing that I can go home and not worry about getting electrocuted.

Another of APE's *afectadas*, Valeria – a middle-aged woman living in council-owned accommodation in Terrassa (a small city in the centre of Catalonia, north-west inland of Barcelona) unable to work long-hours due to a disease that affects her hands and legs – had a *pinchazo* electricity connection for a year and a half before securing a legal supply. The risks of *pinchazos* for other people living in her block of flats weighed on Valeria's conscience:

If anything had happened, it's not just me but everyone else that might be there. Elderly people who can't get out because most of them are in wheelchairs. It was to do with that, so I could say that I don't just think of myself, I think of the other people that live there too.

Pinchazo supplies also carry the risk of financial penalty. Take, for example, the case of an older man named Jordi I met at a noisy APE demonstration outside the offices of energy firm Gas Natural Fenosa. Since losing

his job in 2015, Jordi and his sick wife have illegally occupied the home they have lived in for years prior to the crisis. They illegally reconnect their water and electricity only at night, knowing that technicians come in the daytimes. Yet still they have been caught several times. Even though the technicians usually secretly reconnect the supplies, they cannot avoid documenting the illegal connection to their bosses, which has resulted in fines totalling €10,000 over the past two years.

Alongside the material inadequacy of pinchazos, it is also important to consider the ways in which its protagonists themselves conceive of this practice. For Esther, pinchar was a form of theft and criminality she sought to avoid at all costs. Indeed, many of those coming to APE with pinchazos feel embarrassed and ashamed. Thus, while Loftus (2012) argues that, through daily reproductive struggles, we might gain the situated knowledges necessary for grasping the relations of domination that constitute the urban environment, this does not seem to happen through pinchazo practices.

James Scott (1990) has shown that behind a veneer of docile compliance, subordinate groups often develop “hidden transcripts” of resistance in their everyday practices. Thus, that pinchazos fail as a materially sufficient response to energy poverty and that this practice seems, on the surface, to lack any ostensible counter-hegemonic orientation, is perhaps insufficient to deny it of any political potential. Yet, while Gonick (2016a) reads, in the practice of illegal housing occupation in Madrid, possibilities for alternative emancipatory urbanisms, it is difficult to build a comparable case pertaining to pinchazos. Gonick illustrates that the mainstreaming of illegal occupation is shifting common sense beliefs around homeownership as necessary for full inclusion in urban life. In contrast, for most of those reliant on pinchazos that I encountered in Catalonia, this was seen as a form of “theft” to be ashamed of. Therefore, I am reluctant to suggest that pinchazo practices in Catalonia offer the seeds for the expansion of political agency within the energy sector.

Comments made by scholar-activist Trevor Ngwane of the Soweto Electricity Crisis Committee (SECC) – a militant movement contesting electricity

disconnections in the post-apartheid South African context – shed further light on the situation in Catalonia:

I remember a time when in the SECC meetings people who were illegally connected would be asked to raise their hands, and almost everyone's hands would go up. There'd be this sense of relief as almost everyone would be illegally connected. The only thing was that they were doing it as a criminal act individually. So, it was a question of turning what was a criminal act into a collective act of defiance. (Cited in: Naidoo and Veriava 2009, 321)

If the political prospects of pinchazos seem somewhat ambiguous, perhaps the notion of “collective defiance” deployed by Ngwane might provide a clearer sense of possibility. Indeed, in Gonick's case of squatting in Madrid, the common sense shifts she traces are associated with the ways in which this practice is collectivised through dedicated political organising within la PAH. In contrast, pinchar – refused as a viable organising tactic by APE – remains individualised and atomising. I want to suggest, in the next section, that the “everyday” energy politics enacted by APE charts a more hopeful collective path.

Energy as social reproduction

To understand APE's praxis, we must firstly turn to the specific way in which “energy” is understood within the network. My contention is that APE offer a conceptualisation of energy that provides the potential for a politics that drags energy from the private to the public sphere.

Consider the slogans foregrounded in the Endesa occupation, as described in the introduction to the chapter: “Ni set, ni fred ni foscor!” (no thirst, no cold, no darkness!); “Tenemos derechos: agua, luz y gas!” (we have rights: water, light and gas!). These slogans, repeated persistently throughout APE's activities, tell us something foundational to the group, which mark it out as unique within actors participating in energy debates. This is the inclusion of water alongside electricity and gas within campaigning around “energy poverty”. Campaigners working on both water and energy issues were involved in the formation of the network in 2014. Meanwhile, there was a realisation that people struggling to

access electricity and gas will likely face difficulties accessing water as well. Thus, the demand for “basic supplies” across the board made sense. It is, moreover, impossible to understand APE in isolation from struggles around housing and in particular, the relationship to la PAH. Many APE afectadas are directed to the group from la PAH, both networks actively support each other's activities and often organise joint protests and events. “APE is PAH; PAH is APE”, as one activist put it to me.

As such, APE's campaigning spans across a range of materialities. Indeed, both APE and PAH frame their struggles as part of the overarching right to a dignified life. The first principle of APE's work is: “Universal access to basic supplies: all families, even if they cannot pay, should have the minimum services required to live with dignity” (APE 2017). We can, then, understand APE as translating the concept of energy as social reproduction more broadly. As described in Chapter 2, materialist feminist theory on social reproduction focuses our attention on the processes necessary for sustaining life (Katz 2001; Mitchell, Marston, and Katz 2004; Meehan and Strauss 2015). Rejecting Marx's focus on waged work as the exclusive site of value creation, and thus the industrial (male) working class as the subjects of revolutionary change, materialist feminists focus on the dialectical relation between production and reproduction, opening up our political outlook such that the racialised and gendered processes of what Mitchell et al. (2004) term “life's work” are rendered as shot through with both exploitation and latent possibility (Federici 2012b; Mitchell, Marston, and Katz 2015). APE, I am suggesting, understand questions of energy as primarily, questions about life's work. The struggle is not waged solely around access to electricity or gas but, instead, the aim is to secure all that is required to reproduce ourselves as healthy and flourishing subjects.

Accordingly, debates around “energy” within APE bypass the abstract technical discourses that often pervade. Instead of questions of electrons, carbon emissions or economics, APE recognise Huber's provocation that “energy is life itself” (Huber 2013, 7). The result is a de-fetishised understanding of “energy”, exploding the idea of a singular “magical substance” (Lohmann and Hildyard 2014) and casting our attention instead on the multiple power-laden processes

through which bodies are made thirsty or hungry, or homes made cold or dark (Doshi 2016).

For APE activist Mònica, this “life-centred” outlook helps constitute a feminist praxis:

We didn't know that we would have so many women taking part [in APE] no, so it's kind of a surprise, or it could seem random. But then you realise it's not, because the people who are sustaining these precarious lives are normally women inside the families... Some feminist practices are present in APE, not only because we are many women there but because it's life-centred, like, sustaining lives is what matters. That is what guides our discourse, that is what guides our priorities maybe.

Given the gendered division of labour integral to capitalism, the work of “sustaining precarious lives” falls disproportionately on women (Dalla Costa and James 1975; Federici 2012b). Thus, more often than not, it is women that come to APE for support. Yet the gender of those who participate in APE is of course no marker of feminist praxis. Rather, Mònica’s suggestion is that there is something particular about the group’s “life-centred” outlook that generates an explicitly feminist politics: if APE can be understood as translating energy as social reproduction, their political project can be read as oriented around transforming the social relations that reproductive practices are constituted in and through.

Yet, clearly, a life-centred politics need not translate as a feminist politics. The daily reproductive struggles of particular social groups are often pitted against each other in the making of various forms of reactionary and exclusionary projects. The recent rise of the far right in Europe, for example, has in many contexts been premised upon endeavours to blame post-crisis everyday struggles on scapegoated racialised minorities. In contrast, I want to argue that for APE, the focus is on a life-centred politics oriented around transcending atomised and privatised relations of social reproduction in the neoliberal city to create more collective, just and inclusive forms of urban life for all. It is to illustrating this hopeful orientation further that I now turn.

Mutual support

Integral to APE's struggle is a collectivised, politicised, and antagonistic approach to "casework". On this model, *afectadas* seeking support must come to a fortnightly *asesoramiento* (advice) meeting, in which others present – usually a mix of both "activists" who entered the group out of pre-existing political commitments and other *afectadas*, who first came to APE to find solutions to their own cases – will offer advice with the aim of empowering people to find their own solutions. *Asesoramientos* begin with a short "welcome" statement, read aloud, which says much about APE's outlook:

Welcome everyone, you are in the best place, you are no longer alone. This is a space of mutual support and trust. Be clear that this is not a crisis it is a con... We are not experts but with advice you can fight your own case...We do not make miracles, but our collective struggle can win. What we want is for people to know their rights and learn to defend themselves. We give you all of the tools but you are your own lawyer.

APE, then, seek to organise on the basis of mutual solidarity rather than charity: *afectadas* are encouraged to stay active in the group after their own situations have improved, using the knowledge they have gained in the process to support others.

A key tactic is "accompaniment", in which a group of APE activists go alongside an individual to the office of the relevant utility firm to negotiate on their case. Accompaniment actions are complemented by larger scale protests and direct-actions levelling more general demands. The ways in which APE seek to render the lives of *afectadas* less precarious, then, tend to involve collective antagonistic confrontations with the institutions seen as responsible for this precarity.

The mutual support network of APE is a qualitatively different way of "getting by" to the makeshift urbanism of *pinchazos*. While those reliant on *pinchazos* tend to come to APE feeling alone, afraid and ashamed, APE functions as a social infrastructure (Simone 2004b) through which new relations and affects of solidarity and collectivity are fostered. For Federici (2012a) endeavours

to transform social reproduction must be attentive to the quality and character of reproductive relations internal to the struggle itself (see also: Chatterton and Pickerill 2010). Accordingly, just as APE seek to remake reproductive relations through ensuring access to basic services, they seek to foster relations of care and community within and between members of the group – here begins the feminist praxis alluded to by Mònica.

Indeed, the group is often referred to explicitly as a “family”. Within this family, moments of joy are frequent, from the office chair races and dancing of the Endesa occupation through to the emphasis on celebrating small victories in the assembly the following evening. All roles that contribute to these victories are valued: “The person who is in charge of bringing cookies, I think we owe this person everything”, Mònica told me. “It makes the movement more inclusive and it... I think it also gives a lot of importance to all the work that is invisible, most times related to women”. Thus, APE prefigure reproductive relations in which patriarchal divisions of labour begin to be undone (Federici 2012a). Much of what is achieved through the formation of this new “family” takes place at the affective level. In Esther’s words: “Talking about the Alliance makes me cry. For me it’s a feeling, a really important thing.” “What’s special with the Alliance is the spirit, it comes from the soul. You really feel it”, for another APE activist named Pablo. “You get involved, you care, you feel, you are allowed to cry”, as Mònica put it to me. Accordingly, emotion and affect become key terrains of struggle through which APE’s feminist praxis is articulated (Brown and Pickerill 2009b, 2009a).

As with all prefigurative political projects, there is inevitably a degree of experimental failure here, with dominant relations often re-inscribed (Holloway 2002; Pickerill and Chatterton 2006). Firstly, as described above, APE operate within a gendered division of labour and, hence, the burden of struggle is disproportionately shouldered by women. That said, many men do participate in the group and, vitally, do so across a range of activities, rather than gravitating towards more typically “macho” roles of strategic political visioning and militant street protest, as often occurs within the gendering of activist work (Gonick 2016b). Class divisions within this new “family”, are however more pronounced,

with a good deal of knowledge, expertise and strategic power residing in the hands of a small group of university educated and experienced "activists". Still, there is a genuine commitment within the group to reflect upon and challenge the ways in which relations of domination are reproduced. Indeed, the culture of solidarity and mutual aid described above – a means of sharing leadership, expertise and responsibility – begins to chip away at the aforementioned class divide. Many "afectadas" become key "activists", blurring the afectada-activist binary and resulting in a group with far greater class and ethnic diversity than is, in my own experience, typical of many European urban activist networks.

The "right to energy"

If, then, APE crafts family and joy out of loneliness, shame and fear, likewise it fosters confidence and antagonism, furthering the sense in which emotion anchors APE's struggle (Brown and Pickerill 2009b, 2009a). Integral to this is the insistence on energy as a right. Energy access is often discussed as a human right with, for instance, the UN special rapporteur on adequate housing including access to electricity as one aspect of the human right to housing and several nation states such as France and South Africa similarly purporting to treat electricity access as a human right (Tully 2006). The concept of the right to energy has also made its way into scholarly discussions with Bradbrook and Gardam (2006) arguing that energy services should be understood as such, and Pilo (2017) undertaking an interesting exploration of how the regularisation of electricity access in the favelas of Rio de Janeiro might relate to the broader question of the "right to the city".

Walker (2015), however, worries that the right to energy is a vague and ambiguous concept, easily co-opted by state and capital (see also Bakker 2007). Indeed, for Angel and Loftus (2017), rights-based politics more generally risk reifying the state as an independent arbitrator of justice. Yet Walker stresses that "multiple, alternative ways of defining and realising the right to energy are available" (2015, 36), with Angel and Loftus (2017) arguing that rights-claims can be integrated into broader strategies for transformative change. APE, I suggest,

develop a discourse of the right to energy that portends this kind of transformative potential.

As discussed already, APE understand the right to energy as one component of the broader right to a dignified life. As such, the group's concern is winning universal access to the energy services necessary in pursuit of this more general right. On the one hand, APE advocate for the right to energy as a legal right in an attempt to gain strategic concessions from the state. Most high-profile in this regard is a Catalan law introduced on the back of joint campaigning from APE and la PAH in 2015, which prohibits electricity, gas and water disconnections for households designated as "vulnerable". This law is celebrated within APE as an important step towards the right to energy.

Yet while APE's pursuit of the right to energy involves strategic engagement with state and legal processes, their deployment of the notion of the right to energy far exceeds this. The right to energy, as enacted by APE, is a right demanded through collective struggle, as opposed to one granted to individuals from benevolent institutions (Harvey 2008b). Understood as such, the right to energy becomes an antagonistic discourse and set of political practices and, vitally, a tool for shifting affect and consciousness. For the way that APE discusses and demands energy as a right fosters a sense of righteous entitlement: if energy is a right, then it is those that violate this right that are in the wrong. APE's discourse of the right to energy encourages *afectadas* to feel deserving of all they need to live well; to understand their precarity as emerging from a deeply unjust political economy as opposed to their own personal inadequacies (Butler 2004); to claim their entitlements collectively through contestatory action. This serves to combat the guilt and shame associated with poverty, debt and disconnection from formal urban infrastructures (Sultana 2011).

In this sense, while APE do advocate the right to energy as a legal right to be won from state processes, they are equally concerned with the subjective effect that conceiving of and demanding energy as a right can have on those who make this demand. Thus, APE offer us a way of considering the right to energy as a powerful means towards making both new laws and new subjects, portending a

rights-based politics that can avoid some of the worries around co-optation discussed by the commentators above.

Subjectivation

Accordingly, the right to energy becomes part of a broader process within APE pertaining to the formation of unruly political subjectivities (Ruddick et al. 2017). Explaining her feelings around utility firms prior to joining APE, Valeria told me: "I thought that they put up the prices too much, that they were thieves." On the question of whether these feelings had changed since joining, she said: "I still think the same way, but now I realise that you can fight, you can support each other in order to change things." Lucia, a middle-aged Colombian migrant, expanded on her own journey:

I've always been very rebellious, but I've never taken part in demonstrations, social activism, going to demonstrations, protesting against something, no... Before La PAH I was afraid, since 2008 when the problem with the bank started and it was terrible... In 2011 afraid didn't come close. It was frightening, I was terrified... But in 2013 I'm not afraid... Because I'm able to fight with anybody: banks, politicians, injustice. I'm not alone. There are many people with my same problem. You know when, for example, we say in APE, when we do the welcome sessions, they say: 'you feel better when you see the other people have the same problems'. Now this is my strength.

We might understand the processes Lucia and Valeria describe with reference to Rancière. Valeria's newfound belief that *afectadas* fighting together can change things and Lucia's recognition that she can "fight with anybody" are in part assertions of equality and, in turn, the stuff of politics for Rancière (Rancière 1999b, 2001). What seems to happen here is a process of change in terms of how these women conceive of themselves, those around them and the political environment they operate within. This, then, is a question of political subjectivity. Essential to Rancière's project is a rejection of essentialising understandings of political subjectivation as a process of pre-given subjects becoming aware of their historical conditions, for example through the lifting of

the veil of proletarian "false consciousness". By way of contrast, subjectivation for Rancière (1999) is about the reconfiguration of identities: the process whereby those left uncounted come to be counted and, thereby, create a new partition of the sensible.²⁸

How, then, does this process take place within APE? In the cases of Valeria and Lucia, pre-existing disillusionment, anger and rebellious tendencies are the foundations out of which – through collective support and struggle – these changes arise. It is in thinking through these processes that Loftus's (2012) provocation towards an everyday environmentalist understanding becomes particularly generative. The "cyborg consciousness" theorised by Loftus (via Haraway 1991) is fraught and fragmented. In the terminology of Gramsci (1971), layers of historically segmented "common sense" coexist alongside a kernel of "good sense". New situated knowledges that arise, then, do not come out of nowhere, nor does it take a vanguard of activists to lift the veil of false consciousness. Rather, pre-existing tendencies and understandings within "incomplete and differentiated subject[s] in a process of becoming" (Loftus 2012, 56) provide the "conditions of possibility" for understandings of the socio-ecological environment that more directly threaten its transformation.

The antagonistic solidarities fostered through APE, in these instances, change how people understand themselves and the possibilities they have to act alongside others to change the world, reconfiguring the social ontologies of urban life (Ruddick et al. 2017). Certainly, this is not true for all APE afectadas, many of which leave the group after finding a resolution to their own case, and many of which continue to live highly precarious lives. But the point, following Loftus (2012) is to identify the conditions of possibility (never a guarantee) for pre-existing "good sense" to be solidified and expanded upon – conditions that emerge through the praxis of APE.

Huber (2013) helps us understand the significance of this reconfiguration of common sense. As discussed in Chapter 2, Huber argues that the materiality of

²⁸ García-Lamarca (2017) makes a similar argument in her analysis of la PAH, using Rancière to theorise the political value of the "insurgent practices" enacted within the Spanish housing rights network.

oil as an abundant and easily flowing liquid fuel has helped facilitate the atomised and privatised regime of social reproduction that characterises neoliberal capitalism. This is premised upon the bounded family unit, charged with the “entrepreneurial” tasks necessary to reproduce the individual household unit over time. Sultana (2011) illuminates that the power relations underpinning the socio-ecological processes that sustain life are mediated through embodied emotions and affects. Thus, when we lack the financial means to buy the commodities required to reproduce ourselves, we are made to feel like we have failed as an entrepreneurial household (Huber 2013), with women in particular shouldering this affective burden. We are made to feel it is our fault and our own responsibility to alleviate the problem. We find ourselves afraid and uncertain as to how to get by.

The power of APE’s social infrastructure, and what distinguishes it from individualised pinchazo practices, is that the affective basis for the “hostile privatism” described by Huber begins to shift. Returning to Ngwane’s take on the situation in Soweto, the sense of “relief” he describes through the overcoming of individualisation and isolation is palpable within APE. Out of this relief comes the possibility for “collective defiance”. When we feel supported, that we are no longer alone, and that we are entitled to the dignity that relations of gender, race and capital deny us, we can begin to understand ourselves, each other and the broader socio-ecological environment in very different ways. We begin to recognise our place as political agents with a stake in debates that we have previously been relegated from. This, in the case of APE, results in the rendering of energy as a matter of public concern.

To summarise the argument of Section 6.3, APE’s everyday energy politics departs from a translation of energy as social reproduction and, through struggles waged on the terrains of emotion and affect, begins to shape new unruly subjectivities. This everyday energy politics, I have argued, is the foundation from which energy might begin to be democratised in the Rancièrian sense discussed throughout the chapter. Whereas *Switched On London* failed to expand political agency within the energy sector, APE illustrate that through foregrounding the ways in which energy connects to the everyday struggles of the urban poor, those

who in London were refused a voice can begin to claim centrality within the energy system.

6.4 Beyond the everyday

As discussed in Chapter 3, though, my intention in the thesis is not to romanticise social movement activities without critical reflection on the questions they raise. Just as the previous chapter documented some of the frustrations of municipal energy as a route towards energy democracy, APE's everyday energy politics encounters obstacles as well – obstacles that it will be productive to think through in order to excavate the possibilities opened and closed by the agentic approach to energy democracy developed in this chapter.

To reiterate a first frustration, discussed already: as effective as APE's endeavours to expand energy agency might be, the re-inscription of existing power relations often means that those who have most agency within the group are middle-class white activists with a similar background for those within Switched On London. In the words of group spokeswoman Maria:

We try, also, in coordination of the movement, uh, we are three activists and maybe eight afectadas. But...but ...finally, who... who, uh... I don't know, of the decisions we take together, the reality is the activists finally are more.

Accordingly, the reconfiguration of energy agency portended by APE should be approached as partial, incomplete and in-process, rather than a finalised achievement.

An additional challenge is that APE's exclusive focus on questions of energy and water access, perhaps occludes questions of ecological crisis, climate change and energy transition. Here, Mònica's comments are instructive:

APE arises from what we encounter in day-by-day struggle, and it's so urgent that maybe the first thing you think of is not 'I want to save the planet' because you think 'I want to save my family'.

Urban political ecological accounts such as Loftus's "everyday environmentalism" perspective demonstrate that the question of access to water and energy is at once "social" and "ecological" (Swyngedouw 2004; Heynen, Kaika, and

Swyngedouw 2006; Gandy 2005; Loftus 2012). Rather than reading APE's focus as a provocation towards "social" as opposed to "ecological" activism, Mònica's comments remind us of the problematics of an ecological praxis detached from the day-to-day struggles she alludes to (Loftus 2012). If APE, as I have suggested, help point us towards a more everyday energy politics, an important question for future thought is how seemingly abstract processes such as climate change might be reframed and politicised through their relevance to daily reproductive practices (Loftus 2012).

The final question of APE that was raised throughout my research process, came from some of the activists within la Xarxa per la Sobirania Energètica (XSE). While many of the key activists in APE are also core participants of XSE, and efforts are made to support and promote each other's activities, these remain separate groups with very different approaches. Mònica, also involved in XSE, commented:

If someone comes to APE and says, "What do you think the energy model should be?", they would give some ideas but they would say, "Let's... I think you should talk to, to the Energy Sovereignty Network," no? And the same, when... when someone comes to the Energy Sovereignty Network and asks, "What should be done on energy poverty?" we say two or three things, but at the end, the ones that have been working on... on this issue particularly are APE.

While all within XSE expressed great respect for APE's work, some within XSE raised questions as to the latter's strategy for moving beyond reforms to address energy poverty, and how APE's praxis might ever translate to more radical transformations within the energy sector and beyond. How, in short, might APE's everyday energy politics and the expansion of energy agency begin to transform energy-society relations more broadly?

The first answer to this challenge is that the forms of "everyday activism" enacted by APE, premised upon the prefigurative creation of novel reproductive relationships, can in itself be considered a world-changing practice. For Chatterton and Pickerill (2010, 487), through the experimental reworking of everyday life, "activists are constantly border crossing between the familiar and

unfamiliar, the world they are stuck in and cope with, the world they are against and resist, and the world they dream of and work towards". It is, they argue, through contradictory endeavours to remake our everyday practices, that post-capitalist horizons are made real and are defined and redefined, building the hope and knowledge necessary to create and sustain imaginaries of life after capitalism in the face of perpetual attempts to deny this possibility.

Yet my sense is that some within XSE would accept this argument around the importance of prefigurative post-capitalist politics, while at the same time maintaining their desire to see APE's everyday energy politics translate into broader changes in the present conjuncture. In the closing section of the chapter, I want to suggest that alongside the emancipatory potential immanent within APE's prefigurative everyday politics, APE's praxis is simultaneously rich with hopeful possibilities in ways that stretch beyond this as well. Firstly, I address the potential of APE's everyday politics to challenge the violence of the commoditisation of energy and other basics of social reproduction. Secondly, I address the role of APE's struggle in laying the foundations for the Barcelona en Comú project.

In-against-and-beyond the commodity form

The result of APE's call for regularised connections for everyone is the somewhat paradoxical situation described previously, whereby those currently accessing supplies for free through pinchazos are turning to antagonistic protests in order to persuade utility firms to take them on as paying customers. Is there not a risk, here, of reproducing the reified commodity form?

Perhaps. Yet the demand for regularised connections must be contextualised. As alluded to previously, APE's campaigning led to a new law introduced by the Catalan government in 2015, illegalising water, electricity and gas disconnections for people designated as "vulnerable" across the entirety of the region. Ambiguities in the translation of vulnerability, alongside variations in the ways in which this law has been enforced (Barcelona being stricter than many other Catalan municipalities), have allowed utility firms to continue to disconnect some precarious households. And the functionality of the law continues to shift as

national legislation changes, for instance, with the introduction of Spanish national law in October 2017 that intends to prohibit disconnections for “severely vulnerable” households. In any case, the impact of the law remains significant: the new norm is that those who own or rent their houses generally maintain formal connections when they cannot pay, with arrears accruing in the process. For illegal occupiers, however, utilities firms are using a legal loophole to refuse to abide by the law, with the Catalan government arguing that they have no power to stop this.

The demand for regularised connections for illegal occupiers, therefore, is the second stage of a broader strategy, which began with the law described above. If this second demand is won, the group intends to address the question of the arrears accrued by non-paying households through the call to erase these debts. Taken together, this amounts to a plan to practically realise the broader understanding of the right to basic services alluded to in the previous section, in which access to water, gas and electricity is ensured, regardless of ability to pay.

This can be read as an approach that works in-against-and-beyond the commodity form. In Chapter 2, drawing on my previous work (Angel 2017), I introduced the idea of a strategic orientation that is at once in-against-and-beyond the state (an idea that will be returned to in the next chapter). Holloway (2002, 2016) advocates for a politics situated in-against-and-beyond capitalism itself: necessarily, we act within capitalist relations but can do so in ways that challenge these relations and ultimately prefigure forms of life beyond them. APE’s fluid relation to the commoditisation of basic services can also be read through the lens of this trialectic. Thus, the inadequacy of pinchazo connections necessitates the group’s demand for regularised connections, which forces the group to work within the commodity form. Yet APE fully recognises that the right to basic supplies stands in direct contradiction to their commodification. Hence, their struggle – for the legalisation of vulnerable disconnections, the regularisation of occupiers’ connections and, ultimately, the eradication of arrears – begins to work against the commoditisation of these services and ultimately, moves the prospect of a world beyond the commodity form into our

political horizons, even beginning to bring this world into being on an “incremental” basis (Silver 2014).

Yet this approach should not be venerated without consideration of its shortcomings. Firstly, a situation in which those who cannot pay access supplies for free does not preclude those who can pay still purchasing these supplies as commodities. The point, then, is that APE's demands push against the logic of the commodity, disturbing the idea that such supplies must be paid for, irrespective of financial means.

Moreover, the prospects for implementing APE's strategy are unclear. The 2015 Catalan law prohibiting disconnections for “vulnerable” households was unanimously approved by the Catalan parliament, in part due to the strategy of the right-wing pro-independence Partit Demòcrata Europeu Català to force conflict with the Spanish state. In this regard, they were successful, with the Spanish Constitutional Court challenging the law in 2016 and overturning articles related to evictions and household debt. Articles pertaining to disconnections, however, remain in tact for now, despite fears that these would be overturned in the aftermath of the 2017 independence referendum and the imposition of direct rule from Madrid. The struggle in defence of this law, then, is ongoing. Beyond this unresolved conflict, it is unclear whether the current demand for regularised connections for occupiers will soon be met, never mind the question of a debt jubilee.

Despite these challenges, the argument of this section shows that it would be unfair to characterise APE as pursuing only short-term material gains. Out of the foundations of their everyday energy politics, a challenge to the commodification of the means of social reproduction emerges. While there is of course no guarantee that this challenge will be fully realised in practice, the point, with Loftus (2012), is to look to the conditions of possibility that open up.

Enabling urban commons

The final contention I wish to make is that APE and other parallel struggles have constituted the foundations of the Barcelona en Comú municipalist project discussed at length previously in the thesis. Several key figures within Barcelona

en Comú were previously key APE activists, including the councillors responsible for energy poverty and energy and water policy, Tatiana Guerrero and Eloi Badia respectively. Indeed, Pablo Cotarelo, the consultant who initially developed plans for Barcelona Energia (see Chapter 4) recounted to me that the first time APE occupied an Endesa office (years prior to the formation of Barcelona en Comú), the team of activists who went to negotiate with management were himself, Tatiana Guerrero, Eloi Badia and the current mayor of Barcelona Ada Colau.

Yet the importance of APE in the formation of Barcelona en Comú goes way beyond this overlap in key personnel. Crucially, the dedicated grassroots organising of APE and other urban movements in the city provided a pre-existing infrastructure through which a municipalist electoral project could quickly be built and gain momentum. In the words of Kate Shea Baird, a member of Barcelona en Comú's International working group and coordinating committee: "most of the important work was already done" prior to the decision to contest the elections. With networks of activists ready to campaign, strong channels of communication and relationships between these networks and the city's neighbourhoods, and the crystallisation of a common sense within the city around the key tenets of Barcelona en Comú's "crowdsourced" manifesto, the conditions of possibility for a successful progressive electoral venture had been established.

Moreover, the feminist approaches of APE and la PAH have informed Barcelona En Comú's commitment to what they term "the feminisation of politics". On the one hand, this is about ensuring equal representation of women in political decision-making. But, further, this is about crafting a mode of politics grounded in relationships and everyday life. As Barcelona en Comú activists Kate Shea Baird and Laura Roth (2017, n.p.) put it in a recent article:

a feminized politics seeks to emphasize the importance of the small, the relational, the everyday, challenging the artificial division between the personal and the political. This is how we can change the underlying dynamics of the system and construct emancipatory alternatives.

The idea is to reject binaries between political ends and means, refusing the panicked urgency of attempts to craft revolution "by any means necessary" in favour of a more patient emphasis on the importance of caring and egalitarian relationships in the immediate conjuncture (Chatterton and Pickerill 2010) – this emphasis emerging not out of an essentialised conception of the “caring woman” but, rather, out of an understanding of the value of care grasped through the process of feminist struggle. Here, we see the prefigurative politics enacted by the likes of APE deeply influencing the ways in which Barcelona en Comú are endeavouring to create urban commons.

As discussed previously in the thesis, the extent to which Barcelona en Comú are succeeding in their attempt to reclaim the city as an urban commons is unclear. The point I want to stress here, though, is simply that without the efforts of APE and other urban movements to support and politically engage with *afectadas* in the city through their highly effective methods of grassroots organising, Barcelona en Comú would have been impossible. The everyday politics of APE, PAH and others are the grounds on which Barcelona en Comú are built. The expansion of political agency achieved by this everyday politics, must be recognised as central to the municipalist project.

Therefore, to the extent that Barcelona en Comú are successful in enacting the forms of urban transformation they desire, the role of APE's everyday energy politics must be recognised as at the heart of this achievement. The point is certainly not that the political value of APE ultimately reduces to its role within the institutional politics of Barcelona en Comú. Indeed, I have throughout the chapter attempted to stress that APE's everyday energy politics is a source of expansive political possibility in its own right, irrespective of the municipalist electoral endeavour. The point, rather, is that alongside the power of APE's everyday energy politics in virtue of its reconfiguration of reproductive relationships and subjectivities – and, in turn, the expansion of energy agency – APE must also be credited for their role in enabling the municipalist project more broadly.

6.5 Conclusion

In this chapter, I have distinguished a new way of thinking and enacting energy democracy that departs from the institutionally orientated approach foregrounded in Chapters 4 and 5. Drawing on Rancière (2009), I have developed an alternative approach to energy democracy centred around contestatory action undertaken by those given no part in energy debates in order to claim agency, thereby pushing questions of energy from the private to the public sphere.

The chapter began by exploring the extent to which energy is predominantly a "private" matter, to be presided over by a minority of experts and professionals. I argued that the experiences of Switched On London, with particular reference to the relationship of this campaign to residents of the Myatts Field estates on the one hand, and GLA officials on the other, evidences this privatisation of energy issues. And I showed how this has proved highly frustrating for the campaign, ultimately undermining its potential to build power in support of the demand for democratic municipal energy.

The chapter then proceeded to turn to the Catalan context, counterposing the praxis of APE with that of Switched On London. Whereas the latter prioritised institutional change over more "everyday" relations to the energy system, I have argued that APE develop an "everyday energy politics". APE's translation of "energy" as social reproduction is, I have suggested, the departure point for a form of politics that can shift affect, consciousness and subjectivities and, in turn, see those given no part in the energy system claim agency. Accordingly, APE portend a means of building energy democracy in the agentic sense. Questions, I have suggested, are raised around the potential of this approach to avoid re-inscribing existing power relations, to connect to "ecological" issues, and to move beyond the everyday to transform energy-society relations more broadly. In thinking through these questions, I have contended that new political possibilities are opened by APE's expansion of energy agency: through the subsequent challenge to the violence of the commodity form; and through the role played within the foundations of the Barcelona en Comú municipalist project discussed previously in the thesis.

I have sought to show that the political potentialities of an everyday approach to energy can in no sense be assumed as given. Rather, my argument has been that a more formalised and collectivised social infrastructure is, in this instance, transformative, with APE's community of struggle seeming to open up political possibilities that atomised pinchazo practices do not. This does not imply that the same follows for other materialities in other historical geographical contexts. Bayat (2000), for example, argues that individualised forms of quiet encroachment in Middle Eastern cities emerges out of the absence of conditions conducive towards collective organisation.

That said, my instinct is that there is something powerful about APE's insistence on being-and-doing-together that holds relevance more broadly. Indeed, I have also alluded to the ways in which the desire to shift atomised survival strategies into "collective defiance" has animated a lively form of everyday energy politics in Soweto. Thus, if the struggle for the right to energy in Catalonia usurps fetishising technical discourses to reframe energy as a question of how we sustain life, the relations of care and conviviality fostered in the process might, perhaps, portend liberatory answers.

7. Conclusion

Energy Democracy In-Against-and-Beyond the State

We won the municipal elections as beginners. We'd never even been in political parties before. Our experience of entering the institutions has been good and bad. The institutions are not designed by us. Many things work well, but there are old structures that are very hierarchical and rigid.

Day-to-day in government, when we began, we felt alone. The offices, the physical spaces, separated us and it was difficult to find each other again. On my first day of work I thought it was like a great castle. Surveying the terrain it was not so easy to change the agenda.

It's wonderful to come out of the castle. Sometimes on the street people stop you and they say: "have courage". People are aware of the problems and the challenges and they don't even know us. But still they say: "courage".

My colleague Gala said earlier that this is an enormous family. We can talk about anything, call things by their name. We are not just here to win. We are fragile too.

From our fragility we want to affirm that we are not afraid because we are together.

-- Ada Colau, addressing the closing plenary of "Fearless Cities" in Barcelona,
June 2017

7.1 Introduction

As Ada Colau brought the closing plenary of the international municipalist gathering "Fearless Cities" to a close, her concluding declaration of togetherness and fearlessness in the face of fragility moved the hundreds assembled to their feet. Spontaneous, rapturous, chants of "*Sí se puede!*" (Yes we can!) reverberated around the grand walls of the University of Barcelona's historic main hall for minutes afterwards. This moment of elation was the finale to a weekend curated by Barcelona en Comú in which new municipalist projects from across 180 cities spanning 40 countries had come together to build connections, knowledge and hope. What I glimpsed in the reaction to Colau's final address was a resolute confidence in our collective capacity to remake ourselves, our cities, our world – a confidence that I had rarely if ever encountered before.

This was not a feeling gained solely from Barcelona en Comú's experiment in seizing institutional power, although the implications of this victory were no doubt at the forefront of many people's minds. Rather, the sense of possibility thick in the air at Fearless Cities was also a product of years of dedicated struggle waged over the terrain in which we often find ourselves most fragile and most fearless: everyday life. As Colau put it earlier in her speech: "If government policies do not have quotidian roots in daily realities, our project won't just fail but will generate monsters."

Indeed, the movement from fragility to fearlessness via togetherness is something Barcelona's first woman mayor learnt in her enrolment within the daily reproductive battles that have come to characterise urban life for many in the city. In their endeavours to defend the rights to housing, water and energy, groups such as APE and la PAH begin from the precarity that characterises social reproduction in the modern capitalist city, recognising this as a shared ontological condition out of which a powerful collective politics can be forged (Butler 2004). As I argued in the previous chapter, this collective politics has the potential to move people from isolation and fear towards confidence and entitlement. What struck me, reflecting on Colau's words afterwards, was the extent to which the vision of fearless cities she articulated was grounded in the fearless reproductive politics of the urban social movements out of which Barcelona en Comú emerged. The ways in which the latter's endeavours to "occupy the institutions" were deeply interconnected with the everyday struggles of the former had never appeared clearer to me. As I argued in the previous chapter, without the previous endeavours of groups such as APE and la PAH – grounded upon the starting point of daily reproductive practices – the municipalist project could not have got off the ground.

Barcelona en Comú's experiment in institutional transformation, then, must be understood as internally related to the everyday reproductive struggles of the urban social movements out of which this institutional experiment emerged. Part of the appeal of municipalism, I would hazard, is that it offers a route out of the dichotomy that has often plagued emancipatory politics: the question of working "inside" or "outside" of the state. If, as I have argued in the

thesis, the state is not a singular coherent actor or thing, then this dichotomy must be refused. Municipalism, with its emphasis on a fluid movement between the institutions and the everyday and its willingness to work within the state in order to transform the state, offers us one possible way forward.

I begin this concluding chapter of the thesis here, because the argument I want to make in these closing remarks pertaining to the question of energy democracy, pulling the threads of the preceding six chapters together, runs in parallel to that sketched briefly above. To recap, the overarching aim of the thesis has been to interrogate the ways in which energy democracy might be productively conceptualised and enacted. The argument I have made, thus far, is that energy democracy can be approached in two distinct ways: i) via the reconfiguration of the institutions of energy governance; and ii) via the expansion of agency over the energy system, which I have suggested can be achieved through struggles waged within the sphere of everyday life. In this final chapter, my contention will be that these two approaches to conceptualising and enacting energy democracy ought not to be understood as dichotomous but, rather, as deeply connected and complimentary departure points for energy struggle. Rather than seeing these two perspectives to energy democracy as competing ends of a binary, it is more productive to approach energy democracy as a process that moves fluidly and openly between these two approaches of institutional reconfiguration and expanding energy agency. To frame this argument, I contend that crafting energy democracy will require struggles orientated at once in-against-and-beyond the state.

The first goal for this concluding chapter, then, is to draw on the discussion of the previous six chapters in order to make the case for an approach to energy democracy oriented in-against-and-beyond the state, and to set out what is meant in this regard. The second goal is to reflect upon the implications of the argument made in the thesis thus far for the range of empirical, conceptual and methodological questions that my discussion has touched upon. I begin, in Section 7.2, by returning to the Research Questions set out in Chapter 1, summarising the ways in which the thesis has answered these. Section 7.3 then turns to the overarching question of energy democracy and develops my

argument around an approach oriented in-against-and-beyond the state. Section 7.4 addresses the implications of this argument for theory and praxis, with Section 7.5 outlining possibilities for future research. I close, in Section 7.6, by returning to the question with which this thesis began, namely, the potential of energy democracy as an emancipatory political response to climate change.

7.2 Research questions

As set out in Chapter 1, the thesis has been guided by four research questions. In this section, I summarise the ways in which these questions have been answered, taking each question in turn.

1. Why and how have endeavours to craft energy democracy via the transformation of institutions of energy governance emerged in London and Barcelona?

This is the question underpinning Chapter 4 of the thesis. Here, I argued that municipal energy initiatives in London and Barcelona should be understood as endeavours to reconfigure the institutions of energy governance, via i) the entrance of municipal institutions within the governance of the energy system and ii) the "commoning" of these municipal institutions through the incorporation of participatory democratic control (Harvey 2012; Cumbers 2015).

These municipal energy initiatives, I argued, emerged out of the interrelationship of two processes that, while articulating differently, connected London and Barcelona. These processes are: i) nascent struggles around the transformation of the state, and ii) endeavours to articulate and build radical visions and practices of energy transition. I argued that in both London and Barcelona, environmental activists felt frustrated by the absence of what Swyngedouw (2010) calls new "great fictions" that promise alternative socio-ecological trajectories. Imaginaries of energy democracy in London, and energy sovereignty in Barcelona, were developed in answer to this frustration. And the advent of Corbynism within the British Labour Party, alongside the emergence of Barcelona en Comú, provided opportunities for these imaginaries of alternative

futures to be concretised as endeavours to transform the institutions of energy governance, through the medium of municipal energy initiatives.

2. What is the potential of these endeavours to transform institutions for building energy democracy in London and Barcelona?

Chapter 5 turned to answer this question. Here, I discussed the extent to which the radical hopes underpinning initial visions of municipal energy as a vehicle for energy democracy have been embodied within their translations as official policy measures in London and Barcelona. I argued that the enrolment of municipal energy initiatives within processes of market liberalisation is curtailing their promise for building energy democracy. Yet I suggested that these municipal energy schemes retain some radical promise by virtue of their potential for expanding the political imagination and opening up new terrains of struggle with regards to the relational constitution of the local state and possibilities for remaking state institutions. That said, I suggested that municipal energy initiatives risk reifying the very processes of energy market liberalisation that are holding these initiatives back and that, therefore, their potential for transforming the energy system and building energy democracy is in this respect limited.

3. Why and how have endeavours to craft energy democracy via the expansion of energy agency emerged in London and Barcelona?

Chapter 6 moved on to discuss the alternative approach to energy democracy distinguished in the thesis, premised upon the expansion of energy agency: the conflict-ridden process by which those rendered invisible and voiceless within energy system decision-making claim centrality in this regard (Rancière 2009). I argued that while Switched On London had aspired to expand energy agency in this way, their prioritisation of bureaucratic policy processes and endeavours to present themselves as "credible experts" within these resulted in a failure in this regard.

In contrast, I showed how, in Barcelona, the context of crisis and austerity alongside the emergence of la PAH as a highly effective movement fighting daily reproductive struggles helped shape the emergence of APE, an initiative that I

argued is highly successful in expanding energy agency. APE, I suggested, expand energy agency through what I termed an "everyday energy politics". This is premised upon a translation of "energy" as social reproduction, which de-fetishises energy and focuses attention on the contested processes through which thirst, hunger, cold and darkness are produced.

4. What is the potential of these endeavours to expand energy agency for building energy democracy in London and Barcelona?

This question was also addressed in Chapter 6. As noted above, Switched On London's endeavours to expand energy agency were never fully developed and, as such, failed to open possibilities for building energy democracy in this way. In Barcelona, however, I argued that APE's everyday energy politics is the foundations out of which new unruly affects, subjectivities and forms of situated knowledge emerge, establishing conditions of possibility through which those excluded from energy decision-making might become seen and heard. Thus, I illustrated how "afectados" living highly precarious lives in the aftermath of the financial crisis have, through APE's model of collectivised support, moved from loneliness and fear to hopeful confidence, and in turn have claimed centrality within the contested processes constituting the energy system in Barcelona. In this sense, APE's everyday energy politics opens fruitful possibilities for energy democracy.

Chapter 6 also discussed some of the challenges that this approach to energy democracy faces. APE's expansion of energy agency is partial and fractured, with residual relations of power, for instance on the basis of class and gender, shaping agency within the activist network. Moreover, I suggested that this approach to energy democracy has thus far failed to foreground "ecological" concerns such as climate change and renewable energy transition. Finally, I considered the potential of APE's everyday energy politics to portend radical transformation within the energy sector. On this, I argued that APE's everyday energy politics is the foundation for an approach to energy democracy that, firstly, challenges the violence of the commoditisation of the means of social reproduction and, secondly, has helped shape the conditions out of which

Barcelona en Comú's endeavours towards the formation of urban commons, including energy commons, has emerged.

7.3 Conceptualising and enacting energy democracy

The research questions above represent a means of carving up and approaching the overarching aim of the thesis, which is to interrogate the ways in which energy democracy might be productively conceptualised and enacted. It is to the question of this overarching aim that I now turn.

Two approaches to conceptualising and enacting energy democracy have been distinguished in the thesis. The distinction I have made draws upon previous contributions by Becker and Naumann (2017) and Burke and Stephens (2018). Both of these accounts are relatively clear on the first understanding of energy democracy, which as explained above, is concerned with transforming the institutions of energy governance in ways that afford energy users and workers participatory democratic control. Yet, in Chapter 2, I argued that neither of these accounts was particularly clear on their conceptualisation of an alternative non-institutional approach to energy democracy: both of these accounts, I suggested, depend upon concepts of energy rights and justice that are ambiguous in both their meaning and their radical potential.

Chapter 2, therefore, developed this secondary understanding of energy democracy further via an engagement with the democratic theory of Rancière. Democracy, for Rancière (2009), is a process of rendering private matters public, which happens when those denied agency on a certain matter overturn the prevailing "partition of the sensible" by claiming centrality. As such, democracy, on this view, has to do with the expansion of agency. And so I have suggested that energy democracy, in its non-institutional guise, has to do with the expansion of agency over the energy sector.

To recap, then, I have argued that energy democracy can be conceptualised and enacted in two ways: i) the transformation of the institutions of energy governance such that these are rendered as subject to participatory democratic control by energy users and workers; and ii) the expansion of energy agency such that those given no part within the energy system claim centrality in this regard.

Both of these approaches to energy democracy have emerged in the thesis as specifically urban phenomena. In Chapter 4, I argued that the scalar properties of the city as a space mediating between everyday life and the geographically extended processes within which this is enmeshed, was one factor underpinning decisions to embark on democratic municipal energy projects in London and Barcelona. The urban, then emerges as an attractive scale for endeavours to craft participatory democratic control over the production of space (Lefebvre 1968; Purcell 2008; Barnett 2012; Harvey 2012). This is not to say that institutional transformation of this order is somehow impossible at other scales of governance, but rather to acknowledge that in the municipal energy initiatives attended to, the specific spatialities of the urban were one of multiple interconnecting determinants at play. Indeed, this point also holds for the struggles to expand energy agency discussed in Chapter 6. Here, I argued that struggles around disconnections from the infrastructure networks constituting the modern capitalist city were the foundations for APE's expansion of energy agency. If one marker of the specificity of urban life is a particularly dense configuration of material infrastructure such as electricity and gas networks (Graham and Marvin 2001), it follows that APE's everyday energy politics is shaped by a specifically urban set of materialities. Again, the point is not that energy agency could not be expanded in an alternative spatial context but, rather, to stress that the urbanity of APE's struggle should not be overlooked.

An additional suggestion I have made is that each of the two approaches to energy democracy distinguished open and close different political possibilities. Thus, the London and Barcelona municipal energy initiatives explored in the thesis represent specific attempts to enact energy democracy in its institutional guise. These initiatives open possibilities for reimagining and transforming the state, while perhaps closing down possibilities for challenging the market logics that underpin the energy system. APE's everyday energy politics, meanwhile, represents a particular attempt to enact energy democracy in its agentic guise. This approach opens possibilities for crafting new and unruly subjectivities that threaten to transform the hostile privatism of social reproduction in the modern capitalist city. Yet, for example, the ways in which this approach might translate

into an ecological politics capable of reorganising the energy system in the face of climate change seems less clear.

While opening and closing different possibilities, the approaches to energy democracy I have distinguished must be understood as interconnected and internally related, rather than as binary oppositions. In Chapter 6, I argued that APE's everyday energy politics, and the expansion of agency this has supported, helped shape the conditions of possibility for the Barcelona en Comú municipalist project, out of which the Barcelona Energia municipal energy initiative has emerged. In this sense, the expansion of energy agency has contributed to the transformation of energy institutions. While, as argued in Chapter 5, Barcelona Energia's prospects are uncertain, it remains possible that some of the democratic aspirations underpinning this project may be realised, for instance through the proposed advisory assembly of energy users and workers. Should this materialise, this could prove to be a vehicle for enhancing the decision-making power of urban inhabitants over energy provision in the city and, in turn, for expanding energy agency. In London, meanwhile, I argued in Chapter 6 that Switched On London's difficulty in expanding energy agency was one factor contributing to the failure to build grassroots power and, in turn, to muster the social force necessary to push state effects in the directions desired. Accordingly, the inability to expand energy agency in this instance translated as the inability to transform institutions. In turn, the absence of participatory mechanisms within Energy for Londoners misses out on the opportunity to expand energy agency.

Across both contexts addressed in the thesis, then, the two approaches to energy democracy distinguished have emerged as mutually constitutive and co-evolving. This leads me to my final contention pertaining to the conceptualisation and enactment of energy democracy. This is that energy democracy should be approached as a current of struggle oriented at once in-against-and-beyond the state, an idea introduced in Chapter 2 (and in Angel 2017) that the subsequent discussion in the thesis has lent further support to. For an approach to energy democracy that acknowledges the importance of a fluid movement between

institutional transformation and the expansion of energy agency is, I contend, an approach captured by the "in-against-and-beyond the state" orientation.

As alluded to in Chapter 2, one means of conceptualising endeavours to reconfigure the institutions of energy governance via municipal energy schemes is as an approach that works in-and-against the state. Municipal energy initiatives necessarily work within the state, given that these are attempts to extend the local state's role in the energy system. Yet, as per the argument of the London Edinburgh Weekend Return Group (1980) (see Chapter 2), to the extent that initiatives like Switched On London and Barcelona Energia have (with varying degrees of success) pursued the commoning of local state institutions via the incorporation of participatory democracy, they have sought to work against the state, which is to say that they have sought to transform the relations of domination out of which state institutions are constituted.

Yet my argument has been that an approach to energy democracy that limits itself to these experiments in institutional transformation misses out on the political possibilities opened up by the agentic approach to energy democracy. This was made particularly clear in Chapter 6. Here, I showed that, in the case of Switched On London, activists have come to feel frustrated by their over-emphasis on intervening within institutional processes at the expense of building independent sources of grassroots power. Further, I illustrated the vitality and hope of APE's everyday energy politics and its potential for radically reconfiguring socio-ecological relations within urban energy struggles.

One way of framing the importance of everyday energy struggles and their potential for expanding energy agency, is as an approach to energy democracy that is oriented beyond the state. The point here is not to say that endeavours to expand energy agency such as those implicit within APE's struggles do not come into contact with state institutions and processes. Indeed, as the open dialectics of the state developed in the thesis makes clear, the state is not a stable thing that struggles can ignore or simply move beyond – nor indeed do APE attempt to do this. Rather, the point is simply that endeavours to craft energy democracy cannot afford to elevate the state to the sole locus of struggle and, instead, must

complement struggles around the state with political action oriented at trajectories beyond state institutions, such as everyday life.

As such, my suggestion is that energy democracy can be productively conceptualised and enacted as a terrain of struggle oriented in-against-and-beyond the state, incorporating a dual-pronged focus grounded in a fluid and flexible movement between institutional transformation and expanding energy agency. There is no ready-made prescription as to how these two interconnected approaches might best be brought together. Rather, this is a question that must be grounded in historical and geographical specificity, and an openness to experimentation, trial and error and, in all likelihood, a degree of failure.

There is a question here as to the extent to which the conclusions reached in the thesis pertaining to London and Barcelona can legitimately be generalised beyond these contexts. In particular, as a concept that has been developed and popularised largely in European and North American contexts, concerns around the universalisation of claims around energy democracy beyond this are particularly pertinent, given the need to guard against colonial imposition in this regard (Angel 2016).

The method of relational comparison (Hart 2017) developed in the thesis can help us think through this question. Through tracing the ways in which experiences within London and Barcelona are connected by and help co-produce shared processes, I have sought to unearth insights into the ways in which processes stretching across space and time are made and remade. In this regard, my intention has been to generate conclusions that are relevant beyond the specific cities my research has been situated within. Yet the point, as I have repeatedly emphasised, is not that the various processes that I have identified as having a bearing on the question of energy democracy – for example the production of state effects, market liberalisation, the advent of new forms of institutionally oriented radical politics, the production of collectivised forms of social reproduction in the face of hostile privatism and so-on – are common generative processes that will "touch down" subject to certain empirical variations elsewhere. Rather, these processes are constituted through the practices particular to specific spaces and times. Thus, the processes explored in

the thesis pertaining to London and Barcelona will connect these cities to other parts of the world. Yet the ways in which these processes will play out elsewhere cannot be anticipated a priori, because the situated mediations at play will be actively constitutive factors in the processes in question.

Addressing the question of ethics within political ecology, Sundberg makes the case for an approach premised upon "walking with differently situated others in intersecting, yet distinct and unequally constituted struggles" (2015, 123). As noted by Loftus (2017), this outlook helps clarify the political implications of relational comparison. Struggles for emancipatory energy futures across the world are particular, are shaped by deeply uneven specific historical geographies, yet are connected. As such, my conclusions around energy democracy ought to be approached as one starting point for conversations across difference – conversations that must be sensitive to the impact of variegated histories and power relations, yet that begin from the question of solidarity and how this might be cultivated. In sum, the relevance of the conclusions reached pertaining to energy democracy in the thesis for contexts beyond London and Barcelona should not be dismissed, given an understanding of different fragments of space as always in-relation. Yet no in-depth assessment of the prospects for energy democracy beyond London and Barcelona can be made without further detailed historical and ethnographic enquiry.

7.4 Implications

If the argument in the thesis constitutes one starting point for conversation across difference around the specific question of energy democracy, through the course of making this argument, I hope to have contributed to a series of further conversations around theory and praxis more broadly. Again, mindful of the origins of these contributions from within two particular European contexts, my intention is not to make universalised claims in this regard. The debates I have intervened in have been informed by inherently comparative conversations drawing from a range of different historical geographies. My intention, then, has been to examine what the energy struggles of London and Barcelona might add to

this comparative endeavour. I highlight several interventions in this regard below.

Firstly, the thesis has made the case for open dialectics as a guiding ontology. I have argued for a relational ontology according to which all “things” are constituted by fluid socio-ecological processes that are open to contestation and change. Yet while Harvey's (1996b, 2008a) influential account of dialectics posits the existence of common generative processes out of which all events, experiences and practices emerge, subject to some empirical variation, I have followed Hart (2017) in understanding processes as both constitutive of yet, vitally, *constituted by* the contingent mediations of difference. As such, what counts as empirical variation of a predefined process for Harvey is an actively determining factor in the making of an always-in-production process for Hart, and for the account developed here. The result has been a historical materialist outlook that avoids under-theorising agency: free from the juggernaut of the encompassing process, the role of localised agency in shaping socio-ecological life has been foregrounded. Yet, in doing so, I have avoided the collapse into analysing events as disconnected, arbitrary or ahistorical, understanding agency as both cause and effect of processes stretching across space and time.

For example – and this constitutes the second implication of my thesis that I wish to pinpoint – the value of an open dialectical approach has been highlighted with regards to state theory. I have argued that the state should be conceptualised as the result of the dialectical confluence of prosaic practices (Painter 2006) and the multiple connected processes within which these practices are situated. Chapter 5 analyses the development of municipal energy policies in London and Barcelona through this perspective, arguing that the localised agency of state officials, politicians, consultants and activists was operative in the ways these policies took shape; yet that this agency was also both cause and effect of processes extending beyond the immediate, in particular market liberalisation. This argument pushes forward conceptual debates around both dialectics and the state. Regarding the former, the application of the open dialectical lens to the state is an original move. The back-and-forth between practice and process evident within the state makes for an insightful illustration

of the pertinence of open dialectics as a theoretical framework capable of bridging unhelpful dichotomies between marxism and post-structuralism. Furthermore, this makes for an important development within state theory, drawing new conversations between the previously polarised accounts of Painter (2006) and Jessop (1982, 2007) to argue that our understanding of the state must leave room for both prosaics and process, disorder and direction.

Third, this new theoretical understanding of the state has enabled a fresh perspective on the nascent project of new municipalism, as pioneered by Barcelona en Comú alongside myriad other projects across the world premised upon the creation of urban commons, in part through the transformation of municipal institutions of governance. The theory of the state developed in the thesis illustrates that while struggles within municipal institutions have the potential to shift state effects, state effects are also shaped by processes stretching far beyond the scale of the municipality. As such, municipalism faces a scalar tension: while municipalism is guided by the idea of proximity (Subirats 2016), my thesis illustrates that the success of municipalist projects is contingent upon struggles to transform relations at a range of scales. Given the spatial nature of this question, further geographical inquiry will be valuable here.

Fourth, my thesis has generated novel contributions to debates around post-politics. Swyngedouw and various collaborators have argued that contemporary urban politics is defined by the declining relevance of urban social movement struggles waged around traditional political institutions (Dikeç and Swyngedouw 2017; Swyngedouw and Wilson 2014). Yet I have shown that municipal energy initiatives in London and Barcelona were shaped out of the Corbyn and Colau projects for institutional transformation and, further, went on to be oriented around interventions within the institutions of urban governance. Moreover, I have contested Swyngedouw's (2010) argument that discourses and practices of climate change management foreclose the development of alternative socio-ecological trajectories. Instead, my argument in Chapter 4 was that the temporal and spatial properties of climate change have been a factor in shaping endeavours to articulate new bold visions of the future. The perceived temporal urgency of climate change, I argued, rather than constraining radical politics,

instead can see radical politics conducted in a specific register (see also: Mann and Wainwright 2018), with the imperative to achieve material change in the immediate conjuncture encouraging activists to undertake strategic interventions within the institutions perceived as mediating possibilities for desired reforms. And the spatialities of decarbonisation within the energy sector, I argued, materialising as a more dispersed and distributed energy system, are seeing urban energy networks mediating novel democratic claims around the decentralisation of decision-making and the advent of new forms of progressive statecraft.

This brings me to the fifth implication of the thesis, which pertains to debates around materiality within energy geography and beyond. Approaching the often polarised debate between new materialism and dialectics, I have argued that while new materialism persuasively shows us that the material qualities of "things" such as energy networks have important social implications (Mitchell 2011), all things have a history and that, therefore, if our history ends at the thing, without uncovering the contested socio-ecological processes underpinning this, it is incomplete. As such, and connecting back to the first implication of the thesis highlighted above, I have argued for an open dialectics of energy, whereby the materialities of energy networks both shape and are shaped by power-laden social relations (as per the argument around the spatialities of low-carbon energy outlined in the previous paragraph). While Hart (2017) herself does not explore the role of materiality in her account of open dialectics, my argument has been that this factors as one vector of difference active in the determination of socio-ecological processes: just as a process such as the circulation of capital is shaped out of the contingent mediations of race and gender, this process is also shaped out of the mediations of material properties, including those of the various components of the energy system. As well as developing Hart's open dialectics further, my hope is that this theoretical approach provides a new way forward in moving beyond the unhelpful new materialism versus dialectics dichotomy within energy geography and critical social theory more broadly.

Sixth, the thesis has opened up new conceptual conversations between energy geography and theories of everyday life and social reproduction. Drawing

on the experiences of APE, I have explored the political possibilities opened by a feminist translation of energy as social reproduction. By bypassing the abstract questions of electrons, emissions and economics that often dominate energy debates and approaching the question of energy as that of how we might sustain life with dignity, I have argued that previously unexplored potentialities for more just and democratic forms of energy-society relations might be excavated. In making this argument, I have developed Loftus's (2012) endeavours to craft an "everyday environmentalism", making the case for what I have termed an "everyday energy politics" whereby people's daily reproductive struggles to keep their homes warm and lit might mediate the formation of new unruly affects and subjectivities that can provide the foundations for more emancipatory forms of urban life.

Finally, the thesis has made new contributions to debates around scholar-activism. My principal strategy in this regard has been to approach my fieldwork as a form of activism, using my research project as a means of devoting time to the reproduction of the Switched On London campaign. Yet, in Chapter 3, I documented several frustrations and shortcomings with this approach, encountered, for example, when seeking to implement this strategy in Barcelona, an unfamiliar political context within a time-bound period, and when my declining political commitment coupled with increasing academic pressures rendered the strategy less possible in London. Despite the aforementioned obstacles, I also argued that the lens of scholar-activist resourcefulness (Derickson and Routledge 2015) is preferable to an alternative approach of militant research (Russell 2015; Halvorsen 2015b), with the latter problematised on account of its limited reflexivity around questions of power and responsibility within activist strategy and leadership. This critique also prompted me to reflect upon my own dilemmas around the question of informing activist strategy, explaining how my own struggles to navigate questions of identity, responsibility and power ended up unhelpfully curtailing my endeavours to disseminate my academic research within activist networks.

7.5 Future research

Having now summarised the argument of the thesis and the implications for theory and praxis, I want to briefly reflect upon the avenues for further research that my thesis portends.

Perhaps the principal limitation with my research project is that the municipal energy policy initiatives being developed by the GLA and Barcelona City Council are at their very early stages of development. As such, it has not been possible to trace how Energy for Londoners and Barcelona Energia are performing as functioning municipal energy schemes. Future research over coming years – exploring the development of the schemes as well as other actually existing municipal energy initiatives across the world – would be extremely generative. This would allow for a more complete empirical picture, while simultaneously deepening our understanding of the local state and its role within energy democracy.

Another line of research that my thesis leaves open is the question of challenging market liberalisation within the energy sector. For my argument in Chapter 5 was that demands around energy democracy should challenge the liberalisation process. Yet exploring what such demands could look like in detail was beyond the scope of my thesis. Further research into the legalities of various different means of challenging liberalisation and potential policy measures in this direction would be useful in informing both further theory and praxis.

My sense, furthermore, is that further research bridging divides between energy geography and theories of everyday life and social reproduction would be productive. This is a previously under-explored direction of theorisation, which deserves further conceptual attention and additional empirical research beyond the Catalan context. Indeed, on the question of social reproduction, Chapter 6 suggested that there was a need for further thought as to how "ecological" issues such as climate change might be translated as questions pertaining to social reproduction, on account of the political purchase of struggles around daily reproductive practices. If one contribution of my thesis has been to explore the potential of what Loftus (2012) terms "everyday environmentalism" with regards to the question of energy, I would certainly welcome further research along such

lines, departing from socio-ecological standpoints including energy but extending beyond this.

Finally, while the question of municipalism as an urban political project beyond energy has been touched upon within the thesis, a more focused interrogation of the municipalist project would be extremely interesting. With new municipal projects rapidly emerging across the world, moving beyond the focus on the Spanish context will be valuable. Moreover, tracking the development of these schemes as they progress, as well as tracing their historical roots within previous municipal endeavours, would also yield rich empirical and conceptual insights.

7.6 From energy democracy to a democratic climate politics

I began this thesis in Paris, 2015, and the climate justice mobilisations staged around the COP21 climate change conference. In the midst of my disillusionment at both the Paris Agreement and the activist response on the streets, my question in Paris – the question with which this thesis began – was whether the nascent agenda of energy democracy might provide a promising avenue for an alternative political response to climate change; one means of enacting “Climate X”, in Mann and Wainwright’s (2018) terminology.

The discussion that has ensued has presented both cause for hope and frustration in this regard. Yet what feels important to stress, in bringing the thesis to a close, is that my scholar-activist pursuits around energy democracy have thankfully taken me somewhere new. The dominant feeling I had in Paris, recall, was one of over-familiarity, that largely symbolic and sometimes militant protests under the banner of “system change not climate change” had become part and parcel of mainstream climate post-politics. I was desperate for fresh thinking and alternative forms of action. In this regard, endeavours to craft energy democracy have not disappointed.

The experiments in energy democracy I have (to varying degrees) been a part of in London and Barcelona have, on the one hand, exposed me to a form of politics more closely oriented around traditional political institutions. The municipal energy initiatives discussed see abstract notions of “system change”

translated into concrete endeavours to do climate politics differently, seeking to reconfigure state institutions in ways that offer urban inhabitants the chance to play a direct role in producing alternative, lower-carbon, socio-ecological arrangements.

On the other hand, the approach to energy democracy portended by APE has brought me closer to daily reproductive struggles than my previous engagements with climate activism have dared. Eschewing technocratic questions of emissions, parts per million of carbon in the atmosphere, and degrees of warming; leaving disempowering apocalyptic projections of ecological collapse behind; my encounters with APE have encouraged me to re-centre the question of sustaining daily life with dignity at the heart of my political outlook.

The thesis has unearthed a number of challenges facing each of these interconnected approaches. Yet energy democracy was always going to be a complex and contested process of energy democratisation, rather than a smooth transition to a fixed end-point. The same, of course, is true of low-carbon transformation in the face of climate change more broadly. Propelling these processes of struggle forward will doubtless require a continual openness to new forms of political experimentation. Yet, for now, the interrelated tasks foregrounded in this thesis of institutional reconfiguration and expanding agency via daily reproductive struggles – characterised here as an orientation in-against-and-beyond the state – have relevance for emancipatory responses to climate change beyond the specificity of the energy sector. If climate change, as suggested by Swyngedouw (2009, 601), calls for "a democratic politics of environmental production", struggles for energy democracy offer a vantage point for beginning to think through what this might mean.

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Appendix I: Interviews Conducted

City	Name	Role	Organisation	Language	In person / Skype	Date
London	Archie	Activist	Switched On London	English	In person	August 2017
	Emma	Activist	Switched On London	English	In person	July 2017
	Laura	Activist	Switched On London	English	In person	August 2017
	Michael	Activist	Switched On London	English	In person	September 2017
	Mika	Activist	Switched On London	English	In person	September 2017
	Two anonymous employees	Activists	Carbon Co-op	English	In person	July 2017
	Brooke Flanagan	Formerly Principal Policy and Programme Officer Development, Enterprise and Environment	(Ex)-Greater London Authority	English	Skype	January 2018
	Stephen de Souza	Strategic Programme Manager: Energy	Greater London Authority	English	In person	April 2018
	Ed Reed	Head of Research	Cornwall Insight (Energy and water industry consultancy)	English	Skype	March 2018
	Syed Ahmed	Director	Energy for London (Energy industry consultancy)	English	In person	January 2018
	Dawn Muspratt	Founding Chief Executive	Our Power	English	In person	November 2017
	Rob Purdon	Head of Contract Management	Robin Hood Energy	English	In person	August 2017
	Anonymous	Unspecified	Robin Hood Energy	English	In person	August 2017

Barcelona	Alfons	Activist	Xarxa per la Sobirania Energètica	English	In person	October 2016
	Gaia (interview 1)	Activist	Xarxa per la Sobirania Energètica	English	In person	April 2017
	Gaia (interview 2)	Activist	Xarxa per la Sobirania Energètica	English	In person	February 2018
	Lourdes	Activist	Xarxa per la Sobirania Energètica	Spanish (no interpreter)	In person	February 2018
	Maria	Activist	Alianza Contra la Pobreza Energètica and Xarxa per la Sobirania Energètica	English	In person	October 2016
	Mònica (interview 1)	Activist	Alianza Contra la Pobreza Energètica and Xarxa per la Sobirania Energètica	English	In person	October 2016
	Mònica (interview 2)	Activist	Alianza Contra la Pobreza Energètica and Xarxa per la Sobirania Energètica	English	In person	June 2017
	Valeria	Activist	Alianza Contra la Pobreza Energètica	Spanish (with interpreter)	In person	June 2017
	Esther	Activist	Alianza Contra la Pobreza Energètica	Spanish (with interpreter)	In person	May 2017
	Lucía	Activist	Alianza Contra la Pobreza Energètica	Spanish (no interpreter)	In person	May 2017
	Kate	Activist	Barcelona En Comú (International Working Group)	English	In person	May 2017
	Steven	Activist	Barcelona En Comú (International Working Group)	English	In person	February 2018
	Pablo (interview 1) / Toni	Energy politics and industry consultant / Activist	Ekona (Economic democracy consultancy) / Barcelona En Comú (Ecology Working Group)	English	In person	October 2016
	Pablo (interview 2)	Energy politics and industry consultant	Ekona (Economic democracy consultancy)	English	In person	April 2017

	Five anonymous employees	Consultants	Ecoserveis (Energy Industry Consultants)	English	In person	October 2016
	Joan Subirats	Barcelona En Comú co-founder and Head of Cultural Policy	Barcelona City Council	English	In person	February 2018
	Tatiana Guerrero	Barcelona En Comú Councillor and Head of Energy Poverty	Barcelona City Council	Spanish (with interpreter)	In person	May 2017
	Francesc Santiago	Head of Public Relations	Barcelona City Council	Spanish (no interpreter)	In person	April 2017
	Lluís Basteiro (interview 1)	Head of Energy Policy	Barcelona City Council	English	In person	May 2017
	Lluís Basteiro (interview 2)	Head of Energy Policy	Barcelona City Council	English	In person	February 2018
	Two anonymous officials	Unspecified	Barcelona City Council Institute of Social Services	Spanish (with interpreter)	In person	May 2017
	Manuel Torrent / Irma Soldevilla (interview 1)	Technical Director / Project Director	Barcelona Energy Agency	English	In person	May 2017
	Manuel Torrent / Irma Soldevilla (interview 2)	Technical Director / Project Director	Barcelona Energy Agency	English	In person	February 2018
	Joan Josep Escobar (interview 1)	Director	Catalan Energy Institute	English	In person	June 2017

	Joan Josep Escobar (interview 2)	Director	Catalan Energy Institute	English	In person	February 2018
	Almudero Laguillo	Director, Energy Education	Gas Natural Fenosa	Spanish (no interpreter)	In person	June 2017
	Anonymous employee	Unspecified	Endesa	English	In person	June 2017
	Two anonymous employees	Unspecified	Endesa	Spanish (with interpreter)	In person	June 2017

Appendix II: Interview topic guides

Below are the rough topic guides I used to give some direction in my semi-structured interviews. As discussed in Chapter 3, while these topic guides gave me an idea of the themes I wanted to explore and some questions to ask, I adopted a flexible approach whereby interviews were allowed to unravel organically, allowing for an informal flexible atmosphere and leaving me free to follow up on participant's responses as I deemed useful.

i) Switched On London activists

1. Energy democracy

- What attracts you to the idea of energy democracy?
- How do you understand this idea?

2. Why campaign on municipal energy?

- What was your thinking when helping to set up/joining the campaign?
- Why do you think municipal energy is important?
- How is this different from previous energy campaigning you've been involved in?
- Where do you think the campaign needs to go next?

3. Evaluating the campaign

- What has gone well?
- What has been a challenge?

ii) XSE activists

1. Energy sovereignty

- What does energy sovereignty mean to you?
- Why is this concept important?
- How does this concept differ from energy democracy?

2. XSE history

- Why was XSE established?
- Does XSE have its roots in other movements?

3. XSE now

- What is XSE campaigning on at the moment? How is this going?
- What are the priorities for energy sovereignty in Catalonia at the moment?

4. Municipal energy

- What do you think of the council's plans for municipal energy?
- Why do you think re-municipalising electricity distribution networks is so important? How could this be done?

iii) APE activists

1. Energy poverty

- Do you have personal experience of energy poverty? Could you tell me about this?
- How have experiences of energy poverty made you feel?
- What do you think are the causes of energy poverty?

2. Relationship to APE

- How did you get involved with APE?
- What is your role in the group?
- How do you find participating in the group? How does it make you feel?
- Have you ever been involved in similar political initiatives before?
- If you have personal experiences of energy poverty, have APE helped you with this?

3. APE history

- Why was APE established?
- Does APE have its roots in other movements?
- What is the relationship between APE and PAH?

4. APE now

- What are APE's campaigning priorities at the moment?
- What is going well?
- What is a challenge?

iv) Elite interviews with municipal energy practitioners

1. Describe the initiative

- What are your current plans for municipal energy?
- What are the goals?
- Why is this initiative being developed?

2. Evaluation

- What is going well?
- What is a challenge?

3. Energy democracy

- Will the scheme give energy users and workers a chance to participate?
Why/why not? How?
- What do you think about the idea of energy democracy

4. Distribution networks

- Would you consider re-municipalising distribution networks?
- Why / Why not? How?